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Do Not Take From This Room

**Influences on Professional Learning:
Five Teachers' Stories**

A DISSERTATION

submitted by

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for the degree of
Doctor of Philosophy**

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Abstract

The purpose of this study was to identify and understand changes that endured in teachers' knowledge and practice after participation in professional development. Case studies were conducted with five teachers who completed a common professional development course in pedagogy. Methodology was based on collaborative research including member checks enhanced by "story charts" depicting visual displays of emerging findings. Portraits of the teachers highlight their diversity in age, background, gender, career stage, and teaching assignment, and also portray differences in their enduring professional learning. From this diverse group, the study found three underlying forces that influenced teacher learning: personal background, career and adult development, and current teaching context. This study suggests caution in claiming that teachers who participate in the same professional development experience will learn and utilize similar information. Instead, these cases illustrate how particular underlying influences intersect with course content to individualize professional learning.

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Most of all, I am indebted to the five teachers who collaborated in this research study: Dhyana, Jack, Joan, John, and Wanda. By opening their classrooms and sharing their learning experiences, they have taught me a great deal. Their pseudonyms rightly protect their anonymity yet I wish they could be known and celebrated widely for their commitment to learning and the hard work they do every day. I hope that by telling their stories, I will have done justice to the personal investment, hope, frustration, and small victories that characterize teaching and that also come to bear on professional learning.

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Introduction

Good teaching depends on good learning.

– Susan Moore Johnson, 1990

Five teachers' stories of professional learning are at the heart of this research study. Their stories are told in response to the question: What knowledge and practice endures from a teacher's participation in professional development – and why? As a teacher educator, I rarely know what new knowledge and beliefs make it back into a teacher's classroom after a course is over; I often wonder "what sticks." In this study, I followed my questions into the classrooms of five teachers who took a course with me. Once underway, my research path led me not only into classrooms but into the lives of teachers. They taught me a great deal about the many influences that affect professional learning. Each teacher in this study is very different from the others; each story is unique. But many of the story elements seem to be universal to teachers everywhere. I believe the influences on professional learning described in these five teachers' stories are similar to what many teachers experience in professional development.

"Good teaching is a creative process, demanding the constant injection of new information, new perspectives, and new psychic energy" (Johnson, 1990, p. 251). How, then, can professional development be a force for good teaching? A first response to this question is: we must know more about the complex phenomenon of teacher learning to truly support good teaching outcomes. Furthermore, we need to understand better what kind of information makes its way from professional development into practice. This study uses a qualitative approach to investigate teacher learning as it relates to a

particular professional development course, *Studying Skillful Teaching*. The methodology, described in chapter one, traces my own story of qualitative, collaborative research so that I might gain insight into the complexity of teacher learning.

The theoretical perspectives that informed this study are reviewed in chapter two. Professional literatures on the sociology of teaching, human development, and career stage contribute different angles of view on teachers' background and development. Literature focused on the context of teachers' work is also considered because of the demonstrable influence that context has on professional learning. Finally, a discussion of traditional and reform-oriented approaches to professional development offers perspective on a range of efforts that have been undertaken over time to promote teacher learning. The combination of these separate literatures creates a multi-dimensional backdrop for a more nuanced and fuller study of professional learning.

The story of each teacher's professional learning is told in five separate chapters (numbers three--seven). In constructing individual portraits of teacher learning, I hoped to capture "the essence and resonance of the [teacher's] experiences and perspectives through the details of actions and thought revealed in context" (Lawrence-Lightfoot & Davis, 1997, p. 12). The teachers' collaboration provided important and frequent checks along the way to ensure the authenticity of my rendering. In my collaboration with each teacher, I was often reminded of David Hawkins's thoughtful essay on teaching, "I, Thou, and It" (Hawkins, 1996). The powerful triangle of researcher, teacher, and our common subject--learning--created a rich experience for each of us. In the end, however, the interpretation of what influenced each teacher's learning is my own.

Chapter eight offers a concluding essay that describes themes common to all five stories of professional learning; it also suggests implications for professional development. Specifically, I explore three underlying influences affecting teachers' learning—each one's background, development, and teaching context. The teacher's stories of professional learning have convinced me that those who offer professional development must do more than focus on the content of a course, institute, or workshop. They must also take into account the strength and individuality of each teacher's personal history, past and ongoing development, and current context. These are significant influences on what a teacher may gain from professional development.

Methodology: Qualitative Research with Five Teachers

The Study and General Approach

My interest in exploring what endures from professional development led me to seek theories and methods that are sensitive to individual stories and flexible enough to allow connections between stories. The principles of qualitative, interpretative research (Denzin & Lincoln, 2000; Erickson, 1986; Miles & Huberman, 1994; van Manen, 1990) are well suited to the study of such a phenomenon; they have formed the methodological framework for my research. In particular, I have used a case study approach (Merriam, 2001; Rossman & Rallis, 1998; Stake, 2000) to hone my focus on the experiences and perceptions of five different teachers. As the study evolved, I became more and more aware of the influence that a teacher's family, culture, personal development, and current teaching circumstances can have on professional learning. I turned to the concepts and practices in portraiture (Lawrence-Lightfoot & Davis, 1997) to enrich my thinking and writing about five teachers' learning in light of their background, their development, and the context of their teaching.

To study the enduring influence of professional development in five different cases, I chose teachers who participated in one professional development course, *Studying Skillful Teaching*, described in the following section in this chapter. The five teachers had the course in common, yet each one differed from the others in many respects. My primary concern was to bring together different stories of professional learning to reveal both the range of experience and the patterns that occur between and

among teachers. In cross-case interpretation “the aim is to see processes and outcomes across many cases, to understand how they are qualified by local conditions, and thus to develop more sophisticated descriptions and more powerful explanations” (Miles & Huberman, 1994, p. 172). I seek explanations for why certain professional learning endures and enriches practice. A qualitative, case-based approach requires “researching lived experience” (van Manen, 1990, p. 1). The “lived experiences” of these five teachers have brought me a new level of insight and have helped me formulate some implications for professional development.

Studying Skillful Teaching: A Reform-Oriented Professional Development Course

The professional development course taken by the five teachers exemplifies reform-oriented professional opportunities for teachers. Studying Skillful Teaching (formerly known as Understanding Teaching One)¹ was developed by Research for Better Teaching (RBT), a professional development agency in Acton, Massachusetts. School districts in New England and in some other regions contract with RBT to offer the course to practicing teachers in their own school systems. I am one of a group of instructors who received rigorous training to teach Studying Skillful Teaching; I have taught the course in six school districts over the past five years. I was the instructor of each of the five teachers who participated in the course and in this study.

Studying Skillful Teaching invites teachers from every level of experience, subject area, and grade level to forge links between theory and practice in a sustained inquiry about pedagogy. The topics addressed, the readings from research, and the

¹ Course description is located in Appendix A

expectation of teacher experimentation and reflection open up possibilities for both informational and transformational learning (Kegan, 2000). Preliminary findings from this course, gathered through RBT summarizers and evaluations, indicated that a great many teachers believe that their work in the course shifted their thinking and their practice in one or more significant ways. Two questions, however, deserve greater attention. After one or two years have passed, what kind of changes in teacher thinking and practice endure? And why do certain aspects of a course stick with some teachers and other aspects prove important to other teachers? This study is not a referendum on the effectiveness of the course. Instead, I used the experience of the course as common ground for the five teachers and me as we converse about and reflect on changes in pedagogy and about the possible reasons for those pedagogical changes.

Research Participants

In my selection process I aimed to assemble a diverse group of teachers willing to participate in this research process. I sent out an inquiry letter to forty teachers who had participated in my course sections; I received twelve positive responses. From those responses, I selected five participants from two school districts in order to represent the range of teachers typically involved in professional development. One district is urban and diverse in ethnicity, religion, and socioeconomic level; the other district is semi-rural, and predominantly white, working and middle class, and Christian. In both districts participants volunteered to take *Studying Skillful Teaching*—it was not mandatory or connected to teacher evaluation. Likewise, participation in my study was voluntary. Teachers who chose to be involved in this research expressed an interest in collaborating

with me because they were drawn to the possibility of looking more closely at their intentional changes in practice.

The choice of just five teachers allowed me to focus deeply on individuals yet have enough variety to appreciate the range of experience in professional learning. I sought to form a group that represented, to some degree, the diversity in the current population of Massachusetts teachers. Table 1 depicts the characteristics of the teachers in several categories. As the research progressed I was often struck by how very different each teacher was from the others along so many variables. Yet as I began to discern patterns in the influences on professional learning, I saw strong commonalities among the teachers in varying combinations.

Table 1: Characteristics of Teacher Participants

	Jack Labany	Wanda Dunbarton	Dhyan Lehari	Joan O'Herlihy	John Walton
Gender	Male	Female	Female	Female	Male
Age	Early 30s	Late 50s	Late 20s	Late 50s	Early 30s
Years teaching at time of course	1	25+	4	30+	5
Years teaching at time of study	3	25+	5	30+	6
Teaching assignment	High school home ec.	Elementary special needs	Elementary grade 3	Elementary art	High school science
Student load	56	12	17	1,150	87
Teaching location	Small town, small school	Small town, medium school	City, small school	Small town, 3 schools	City, large school
Family socioeconomics	Working/middle class	Working/middle class	Working/middle class	Working/middle class	Working class
Family cultural background	Lebanese/Swedish: parents are immigrants	French/British/Swedish: many generations in the U.S.	Indian/Vietnamese: is recent immigrant	Irish/British: many generations in the U.S.	British/Polish: many generations in the U.S.
Education	Bachelor's sociology	Master's linguistics	Master's education	Bachelor's fine arts	Master's Science
Research focus	Writing and communicating objectives	Messages about expectations	Self-awareness of learning	Focus up front, check for understanding	Modeling and criteria for success

Data Collection

As with many qualitative studies, the strength of my data gathering rests on *triangulation*, a principle that ensures both range and redundancy of information (Glesne, 1999; Merriam, 2001; Miles & Huberman, 1994; Stake, 2000). The types of data collected, described below, allowed for multiple perspectives on the phenomenon of enduring professional learning. Data were collected during the academic year of 2003–2004, starting in late August and ending in mid-January. All conversations were transcribed; all notes were offered to the teachers for review.

- *Formal interviews.* Two per teacher. The first interview focused on background information, beliefs about pedagogy, identification of enduring influences from the course, and speculation about the influences of pedagogical changes on student learning. The second interview followed up on earlier statements, addressed evidence from my observations, and explored underlying issues that seemed to be important to the teachers.
- *Course papers.* Several original course papers and reflections per teacher. These documented teachers' perceptions about the learning gained in the course and were compared to teacher statements in interviews.
- *Classroom observations.* Two per teacher, with recorded follow-up conversations. These observations served two purposes. First, I was able to see and experience the context of each participant's teaching assignment. Second, the observations were collaboratively selected to focus on an area of instruction and student learning that the teacher believed had been influenced by course ideas and strategies.

- *Looking at evidence of student learning.* One recorded meeting per teacher. Each teacher decided what evidence of student learning (audio tape, videotape, and/or student products) would be useful and collected it. Then the teacher and I examined the evidence, hoping to discern the influence of the teacher's pedagogical strategies on student learning.
- *Informal written exchanges for clarification.* Exchanges spontaneously undertaken throughout the study via e-mail with each teacher as the need arose.

The most important parameter in the data collection was established in the very first interview. After some preliminary discussion about personal background and schooling, our conversation turned to a recollection of Studying Skillful Teaching. Some teachers had taken it two years earlier; some had finished it recently. I asked each teacher to identify one significant aspect of the course that had fostered an enduring change in his or her thinking and practice. The selection that each teacher made—which I term their “focus” and which appears in the bottom row of Table 1—then gave direction to my classroom observations, our ongoing discussions, and the examination of student work. The decision to focus on one teacher-identified aspect of pedagogy gave some initial shape to the study, serving to privilege some descriptive categories and to neglect others. Such boundaries also began to shape what Donald Schön calls “the underlying story,” formed by “the fundamental messages or arguments that various authors seek to communicate through the telling of a manifest story” (1991, p. 346). Indeed, the underlying story was influenced early on by the first finding in this study: each teacher chose a different aspect of the course as having had a significant and lasting impact on his or her teaching. Why, I began to wonder, did each choose something different? I had

expected that several teachers, particularly those at similar career stages, would select similar topics. That question became more important as I worked through the data analysis and it significantly influenced my conclusions about the implications of professional development.

Data Analysis

The process of data analysis started as the study began and lasted throughout my involvement with the five teachers in their settings. Analysis continued after data collection was completed, when I examined each teacher's story in depth and looked for connections between stories. I realized early on "the importance of using information gained at one phase in the research process for later phases of data collection and analysis" (Corsaro, 1981, p. 144). In fact, there was a clear turning point in my research in the middle of data collection that probably would not have occurred if I had been using a single analytic strategy. (I will explain that turning point when I discuss the analytic strategies I used.)

Two sets of ideas initially guided my study design and intersected in the data analysis process: *constructivist grounded theory* and *case study methodology*. A third concept, *portraiture*, added depth to my thinking and writing toward the end of the data collection phase. Constructivist grounded theory draws from the tradition of *grounded theory* (Glaser & Strauss, 1967) and uses similar analytic strategies to find patterns and develop explanations. The constructivist approach adds a different angle due to its allegiance to a collaborative relationship between researcher and participants, and its dedication to co-constructing meaning from data. This theory, described by Kathy Charmaz, affirms the importance of studying people in their natural settings and

“recognizes that the viewer creates the data and ensuing analysis through interaction with the viewed. . . . Causality is suggestive, incomplete, and indeterminate” (Charmaz, 2000, pp. 523–24). I believe that in order to truly understand a teacher’s learning through research, the undertaking must be *in situ* and collaborative, and the results must reflect a shared construction of meaning.

A case study approach suited my inquiry about enduring professional learning because it created a structure for me to use as I looked deeply into individual experience. Furthermore, as Sharan Merriam points out, in a case study design “the interest is in process rather than outcomes, in context rather than a specific variable, in discovery rather than confirmation” (2001, p. 19). Because teacher learning is a complex phenomenon, a case study approach allows the complexity to be revealed in individual instances. The cross-case intersections then illuminate a multilayered view of the phenomenon itself. Robert Stake cogently argues that the purpose of examining the case is “to provide insight into an issue or to redraw a generalization. The case is of secondary interest; it plays a supportive role, and it facilitates our understanding of something else” (2000, p. 437). In my study, that “something else” was initially the kind of learning that endures from professional development. As the study progressed, the data analysis began to reveal the significance of some underlying variables influencing professional learning. In the later stage of analysis and writing, I turned to the ideas and practices in portraiture to deepen my understanding of why certain learning seemed salient to individual teachers.

Ideas and practices that define portraiture are compatible with the principles of constructivist grounded theory. The portrait “is placed in a social and cultural context and

shaped through dialogue between the portraitist and the subject” (Lawrence-Lightfoot & Davis, 1997. p. xv). In work guided by constructivist grounded theory, Charmaz establishes a dialogic relationship with her subjects. In her write-ups, she makes a point of selecting details that render the subject’s context particular and vivid to the reader (2000, p. 527). In my study, I began in the teachers’ settings, listening for the stories that were uniquely theirs. In every return visit and renewed conversation, our dialogue explored new depths and I took greater notice of the relationship between their context and their learning. When the data collection was nearly finished and I turned to more analysis and writing, Sarah Lawrence-Lightfoot’s theory and practice of portraiture persuaded me that I needed to do more than write up the cases. I began to craft portraits to take into account the obvious and less obvious dimensions that influenced professional learning.

The analytic strategies central to constructivist grounded theory—which are often used also in the case study approach and in portraiture—proved invaluable in my search to understand the complexity of enduring teacher learning. In particular, the use of *coding*, *memo writing*, *visual display*, and *member checks* helped me gain and maintain perspective on the teachers and on myself as a researcher. These strategies also encouraged me to take a “reflective turn” (Schön, 1991), as I regarded the lived experience of five teachers with an eye to patterns and themes common to all of them.

Coding started right after the opening interview and continued until the first writing. A first set of codes tagged the particulars in each case; I discerned these particulars in interview transcripts, observation notes, and informal conversations. A second set of major codes emerged after the first round of coding was completed. Deeper

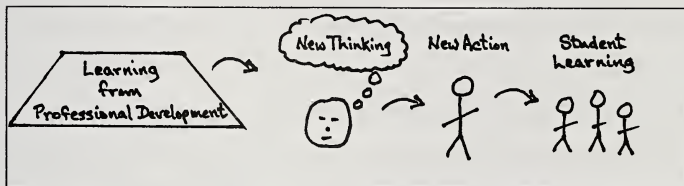
in the “code mines” (Glesne, 1999), this new set of codes tagged details that expressed “key linkages” across cases (Erickson, 1986) and led me to see larger themes related to the influences on professional learning.

Concurrent with coding was memo writing, which I did many times throughout the study to explore my evolving feelings, thoughts, hunches, questions, and doubts. I agree with Joseph Maxwell’s strong endorsement of memos: “Memos do for ideas what field notes and transcripts do for perception: they convert thought into a form that allows examination and further manipulation” (1996, p. 12). The memos I wrote during data collection turned out to be an important resource during data analysis and writing because they gave me perspective on my journey through the research, keeping me mindful of my own subjectivity. As I look back through the research process, I can see that my memos provided the nudge for and recorded the tracks of the turning point in my research—a moment that was captured in making a visual display.

“You know what you display,” state Matthew Miles and Michael Huberman as they “advocate more systematic, powerful displays and urge a more inventive, self-conscious, iterative stance toward their generation and use” (1994, p. 11). Throughout my research process, I used large charts and colored Post-it notes (“stickies”) to capture and organize ideas, details, references, and so forth. I find that a nonlinear organization of disparate pieces of information stays more fluid and opens possibilities for varying combinations. At a key moment, when I had completed the first set of codes for each case and had written several memos, I found myself wrestling with how to depict each teacher’s story in a distilled way, a strategy that Miles and Huberman term “data reduction” (p. 11). I wrote a memo that captured the moment:

Despite my fatigue yesterday afternoon, the very end of that time yielded an opening I hadn't previously seen. I sketched a cartoon of the ripple effect I'm looking at and then I wrote, "Maybe I should try a chart of that cartoon." I suddenly envisioned all this information from Dhyān grouped under each picture. So this morning, I took it up and made a chart and that made me comb through the first interview differently, recoding and adding new codes. Most importantly, that sketch made me restate my question and my focus and then I reminded myself to keep it simple, to stay close to the question, to mine the data for the evidence I was looking for. . . . I was wide before and now I'm going deep. I wonder what my next lens will be on the same document! (unpublished memo by author, henceforth "memo," 10.31.03)

Figure 1: Sketch of Research Focus



My sketch captured information from one set of codes, but I realized that I had two sets of coding categories that seem to intersect, and I was baffled. I turned again to visual display to sort things out, which I recorded in a memo:

So far, I'm a little bewildered about dealing with the two (categories of codes) at once. What is calling me is the story under the story. . . . So then I get out yarn and stickies and start putting category one on top of category two. There is something there, I'm not sure what. How can I represent the two and have teachers talk about it [the two categories] in ways that help me understand what they perceive? (memo 11.16.03)

The result was a two-layered visual display that I called a "story chart,"² it is similar to a storyboard in filmmaking. I made one for each teacher to serve as a crucial

² Examples of Story Charts are located in Appendix B

document in another data analysis strategy: member checks. Asking research participants to respond to work in progress—member checks—is a common strategy in qualitative research (Charmaz, 2000; Glesne, 1999; Miles & Huberman, 1994; Schön, 1991). Member checks bring in the participant's perspective during analysis, support the validation process, and are essential to a collaborative research relationship. As I commented to myself about the five teachers' involvement: "If my central purpose is to understand *their* meaning, then it makes good sense to check out their perspective on the story that I have constructed while it is in progress" (memo 11.24.03). In addition to checking in informally along the way, I did three formal member checks. First, I involved each teacher at a midpoint in the data collection through the medium of story charts. Later, I sent out a draft of each teacher's portrait with a letter asking for his or her candid response.³ Finally, at the end of the study, I met with each teacher to talk over his or her involvement with the research.

The story charts, which distilled findings from the classroom and interview data I had gathered, provided the basis for the second interview. I wanted to know whether what I understood so far about each teacher's change in practice—fostered by professional learning—was accurate from his or her point of view. And I wanted to check out some deeper themes that had emerged during data analysis—themes that pointed to the "story under the story," the subtext that influenced their learning. We worked our way through the story chart, verifying the data and agreeing on revisions. Then I produced colored Post-it notes to represent themes and placed them on the chart, one by one, introducing them as "underground streams" that had bubbled up as I worked with the data. It was a

³ Sample letter to teacher participant is located in Appendix C.

powerful strategy. Dhyan blushed and giggled as I put one theme—*feeling*—on her chart, so I asked, “Do you feel a little uncovered?” She nodded, yet she leaned in to talk about that theme in her life. Each teacher had an immediate, emotional reaction to the four or five Post-its floating on the chart. As they talked, they often pointed to the Post-its to emphasize a point and, in several interviews, the teachers connected two or more of the Post-its to explain something. In John’s case, he recoiled at one theme—*being invisible*—and asked me what I meant. I realized that the theme was important but that I had not yet stated it in its essential form or in a way that he was ready to hear. He and I worked with it until he said, “Yeah, that’s it.”⁴

The combination of analytic strategies engendered a turning point in my research during the second interviews. The themes running through the story charts called my attention to the underlying influences in teachers’ lives that affect professional learning. While I listened to each teacher talk about his or her life, I saw connections between the particular focus of my research—the teaching approach that they implemented in practice—and their history and development. “We teach who we are” (Palmer, 1995, p. 4) often came to my mind as I became more familiar with each teacher’s story. I was able to gain insight because the layers of coding, frequent memo writing, visual displays, and member checks kept me attuned to complexity.

When the second interview ended, each teacher and I set a date for the final piece of data collection: looking at samples of student work to trace possible signs of teaching strategies on which this research had focused. My vision was to bring the phases of data collection and analysis together in a collaborative examination of student learning. It was

⁴ All teachers’ quotes in this study are taken from transcribed interviews and e-mail exchanges.

difficult. First, I wanted the teachers to lead the decision making about what kind of student learning we would look at—and I encountered some reluctance. They were neither sure about what kind of work would be worth looking at nor convinced that they would see any evidence of their particular focus for this research. Referring to his students' physics project, John said, "I have no idea if what I am doing is making any difference." Joan commented that so many variables could account for student artwork. She believed that it would be hard to ascribe any particular results to her strategy of putting a specific focus up front. Indeed in all five cases, the teachers and I found it nearly impossible to make credible connections between a small sample of student work and the single research focus that they had chosen for this project. We would have needed many more work samples and multiple ways of analyzing their teaching to make stronger connections. However, the real value came in the process of looking at work together and speculating about the dimensions of learning that we noticed. Our efforts to trace the effects of teaching on learning revealed just how hard it is to untangle the various influences on student results. The parallel is obvious: it is just as hard to trace the influence of professional development on teacher practice and to know what constitutes an enduring change.

Validation

In a qualitative study, validity is established through triangulation of data, involvement in the site over a period of time, member checks, peer commentary, collaborative research relationships, and recognition of researcher bias (Glesne, 1999; Merriam, 2001). These strategies have played a part in my research, contributing to the authentic depiction of the teachers' experiences. But the simple veracity of the teachers' experiences is not enough

to ensure valid conclusions. I agree with Elliott Mishler, who proposes the term *validation* instead of *validity* and suggests that it is a process that depends on "the range of ongoing activities through which claims are made and appraised" (2000, p. 122). The intersections of analytic strategies helped me continually make and appraise my hunches and claims; I relied especially on member checks to counter threats to validity. Maxwell points out that member checks are "the single most important way of ruling out the possibility of misinterpretation" of the participants' meaning and perspective (1996, p. 94). My own experience in this research confirms Maxwell's assertion. Another sort of threat to validity is researcher bias, which I discuss in the final section of this chapter.

Validation rests on "trustworthiness"—a subjective response from researcher, research participants, and professional colleagues to the research process and its conclusions. Frequent review of my work in progress with a doctoral student colleague (Robin Schwarz) and regular communication with my doctoral committee provided crucial peer response throughout. Not only has their critique proved invaluable but the ongoing dialogue has helped establish their trust in my process and conclusions. The collaborative nature of the research with the teachers was intended to promote trustworthiness at several levels. First, it was important for the teachers to trust me enough to be candid and accurate. Second, I needed to watch for redundancy, confirmation, and disconfirmation in their statements and actions so that I could trust my own perceptions and findings. Finally, I hoped that their responses to my drafts of their portraits would let me know whether my description, analysis, and interpretation rang true and, if not, why not. My confidence in the trustworthiness of the portraits and conclusions was greatly strengthened by the teacher's responses. At times, they would make a correction, share an emotional response, or suggest

that a sentence didn't quite capture what they meant. Those moments bolstered my sense of their unguarded and truthful engagement with my rendering of their experience. Quite a few times, the teachers expressed appreciation that I had captured "just how it was." For example, Wanda wrote an e-mail about reading the draft portrait: "Reading it really brought me back into that slice of time." Then she commented on one of my interpretations: "You had said that I now felt like I had the confidence in my own authority and decision-making power . . . and that felt like a bull's-eye when I read it" (e-mail, 3.31.04). Because Wanda had been candid earlier when she disagreed with one of my perceptions, I was able to accept this confirmation with confidence.

Researcher and Participants: Subjectivity and Relationship

My experience and expertise as an educator informed the stance I brought to this study. On the one hand, my familiarity with teaching and learning—and in particular the content of Studying Skillful teaching—was advantageous to the research because the participants and I had common ground from the outset. This familiarity also proved challenging because I had to work to recognize my own assumptions and biases cropping up in the course of interactions with my research participants. As Merriam points out, "In qualitative research where the researcher is the primary instrument of data collection, subjectivity and interaction are assumed" (2001, p. 103). The important thing for me was to gain some perspective on my own subjectivity about the ideas driving my study and the participants with whom I was interacting. Even in the three general operating questions that guided me through this research—What is happening here? What is working? and Why?—bias is evident: I did not ask what is *not* working. I wanted to

know what endured from professional development in teachers' thinking and practice, so I searched for the presence of something and relegated absences to the background.

Memo writing kept me mindful of my subjectivity throughout the data collection, analysis, and writing phases. Early on, I reread Alan Peshkin's essay "The Subjective I" (1991) and then wrote a response, exploring my own "subjective I." I discovered that the "Teacher I," the "Principal I," and the "Liberal/Progressive I" were some members of my "subjectivity committee"! I wanted to stay awake to these influences and, in Peshkin's words, "consciously attend to the orientations that will shape what I see and what I make of what I see" (Peshkin, 1991, p. 295). Frequent memos helped maintain that attentiveness. Furthermore, during observations and conversations with my participants I was vigilant for my own "warm and cool spots" (p. 287) that bubbled up. For example, I remember being disconcerted and taken aback when Jack espoused some ideas about the sources of achievement that ran counter to the concepts in *Studying Skillful Teaching*. I felt the urge to correct and realized that the "Principal I" had suddenly overshadowed the "Researcher I." Taming one's subjectivity, however, doesn't mean suppressing it. Not only was it important to for me to be aware of the ways in which my orientations influenced my view; it was also necessary to acknowledge my subjective presence to my readers. The work of Lawrence-Lightfoot and Davis (1997) taught me to consider "sketching myself in" to the narrative so that the reader could be aware of the presence and view that inevitably shaped the story.

The issue of subjectivity is further complicated—and potentially enriched—by the evolution of the relationship between researcher and research participants, often captured in qualitative research by the term *intersubjectivity*. Ideally, I wanted a collaborative

relationship with each of the five teachers so that we could co-construct our understanding of the professional learning that endured beyond the course. Envisioning such collaboration, I set the tone in a letter to the five teachers before the research began, outlining what they might expect as research participants:

I would not really be studying you—rather, we would both be studying teaching ideas, practice, and student learning. I would not want you to think you would be under some microscope while I try to prove a theory! Instead, I am asking you to invite me into your reflections on your own education, your thoughts, your practice, and the possible links to student learning. I imagine that we will share perceptions and interpretations through our work together and that the patterns and insights that arise will evolve out of our ongoing interaction. We would certainly get to know each other as colleagues and I am sure we would learn a lot together. (author's letter to participants, 7.21.03)

In this paragraph—and in the letter as a whole—I was also beginning work on another dimension of setting up collaboration: power sharing. As Bill Ayers said concisely, “Research is always influenced by the issue of power.”⁵ Because the teachers had previously known me as their instructor, I discussed the shift of roles in our first interview, explicitly inviting them to consider themselves partners and explaining that my purpose was to learn with them. Throughout the research I continued to cultivate a collaborative undertaking by inviting the teachers to make key decisions and offer their perspectives. I asked each teacher to choose a focus for the research, suggest what class I should visit, comment on observation notes, select the kind of student work we would examine, and review the draft portrait. When we discussed each class I visited and the student work we assessed, I worked to keep my informal questioning open-ended and exploratory (e.g., “What do you make of that student’s statement?”). At the very end of

⁵ Bill Ayers, seminar presentation at Lesley University, October, 2003.

the study, I met with each teacher to share a meal. We talked about their impressions of the complete portrait, their perceptions of our relationship, and possible effects of the study itself on their thinking and practice.

The reality of collaboration and power sharing in our research relationship fulfilled many of my hopes, yet there were moments of frustration. The teachers were candid in their opinions and stayed invested in their research focus. When we discussed the study at the end all five talked about their high comfort level with me and my access to their teaching life. Yet three of the five confessed that they wanted to ask my opinion about what I saw and heard in their classroom and felt a little frustrated by my noncommittal posture toward their teaching. But I had to keep the “former Instructor I” in check in order to foster the collaborative relationship I wanted. The shift in roles and evolution of shared ownership took time. Dhyana’s sense of the adjustment was revealed in her comment about “an underlying feeling of trying to give what you might be looking for, just like my students do with me. As time went on, I felt I could explore whatever I was interested in and you were open to that” (Dhyana, 6.28.04). When we discussed a class or my writing, my sense of the teachers’ genuine engagement was bolstered by comments like, “I couldn’t believe how accurate you were” and “I could picture myself back in the classroom” (Jack, 7.7.04). I was also encouraged when the teachers offered countering views and worked with me to revise something until we both agreed on it.

Another important point about our collaboration concerns the teachers’ overall responses to my portraits of them. Four teachers felt that the draft captured an authentic picture of themselves as teachers and accurately depicted the influence of their professional learning on their teaching. One of the four, Dhyana, felt a little uncomfortable

that her life story had been so revealed and wondered aloud whether she would show it to her parents: “I felt it was difficult to read because there was so much truth in it” (Dhyan, 6.28.04). The fifth teacher, John, commented that much of what I had written was accurate, but he was a little discouraged by the portrait. He felt it presented a negative picture of him as a teacher. It had not been my intention to portray him negatively, so we discussed several items in the portrait to help me understand his perspective. I ended up having several readers look at the draft; I reviewed my research notes and revised some parts of the portrait to emphasize more clearly his struggle with the constraining aspects of his circumstances.

My final meeting with each teacher provided an opportunity to appreciate what we had done. We reflected on the effects on the teacher’s practice of being in a study and brought our work together to a close. Inevitably, being involved in a research study changes both researcher and participant and influences the data and thoughts under investigation. I wondered how the “halo effect” would affect our understanding of one aspect of professional learning. All five teachers said that being in the study tended to push the research focus to the forefront of their minds, keeping them mindful of its role in their teaching. Joan admitted that she spent extra time planning with her research focus in mind because she knew I was coming to class. I suspect that that was true of the other teachers as well. A sense of focus seemed to spread to all aspects of their thinking. “Doing this research project really focused me more,” said Jack (Jack, 7.7.04), and all the other teachers made similar statements about “sharpening [their] thinking” and “verbalizing [their] thoughts.”

The self-reflective aspect of the project was cited by all five as an important gain. Jack called it “looking at myself through myself.” Joan said, “The whole thing made me think about what I do everyday” (Joan, 6.17.04). “It was emotional,” said Wanda, who often thanked me for my comments and drafts. “I’m thirsty for that kind of conversation because it doesn’t happen much at school. I felt like I was getting a treat” (Wanda, 8.18.04). The study had an emotional component for John, too, but it wasn’t as positive. He acknowledged that being in the study helped him “look at a classroom in a different way” (John, 6.10.04). But he also said that it was tough to look continually at a class that discouraged him. He grinned and said, “If I hadn’t been in the study, I would have thrown in the hat long ago.” He meant that he would have stopped pushing his students so vigorously and simply accepted whatever effort they bothered to make. Instead, he said, “I kept struggling and trying to work with it [student lack of enthusiasm].”

Our collaborative work and joint reflection helped us see that a teacher’s story of professional learning was larger and more complex than any of us suspected at the beginning of the study. As I began to discern intersecting influences of background, development, and context on the teachers’ professional learning, I shared my tentative findings with them. Such sharing often elicited an “Aha!” response, either in the moment or in later conversations and e-mail exchanges. The five teachers’ thoughts and feelings, revealed in word and action, gave me an invaluable perspective on the personal reality of teacher learning and practice. At the same time, my understanding was continually challenged by wide reading in the professional literatures that are relevant to teacher learning. In the next chapter I review several bodies of professional literature that have

guided and prodded my inquiry about what endures from professional development in teachers' knowledge and practice.

2

Literature Review: Theoretical Perspectives on Professional Learning

In this review I address three underlying influences that come to bear on teacher learning and pedagogical change: background, development, and context. The teacher's background, family, culture, and experience of schooling each plays a role in shaping his or her views of the world, perspectives on teaching, and opinions about what kind of professional knowledge is important to learn. Teachers' adult development levels and career stages are also strong influences that help to determine the types of learning teachers might be inclined to take in and integrate into their work. Finally, the very personal mix that each teacher brings to professional learning interacts with the current context: his or her teaching circumstances as well as the broader landscape of school, community, and educational mission.

To be sure, existing studies have the potential to illuminate our understanding of teacher learning and pedagogical change. But it is too often the case that the separate literatures do not talk to each other. What is known in one field is not taken into account in another and our understanding is by far the poorer for this lack of intersection. This review draws largely from the human development and sociology literatures, focusing particularly on adult development and learning, career stages, and both sociological and contextual influences on teachers. In a closing section the history of professional development and emergent models for teacher learning are briefly reviewed. Taken together, the studies discussed here bring into focus possible entry points for changes in pedagogy, along with a more complete view of the complex picture of teacher learning.

The intersection of these literatures challenges those who offer professional development to be less sanguine about asserting the benefits of particular programs. Instead, we enter into a new understanding of the special alchemy that occurs when practicing teachers pursue professional learning, and from this we stand to gain an appreciation of the highly individual results and possible benefits for each teacher.

Frame of Reference: A Personal Window on the World

Research on human development offers a key concept that can help illuminate our understanding of teacher learning—the teacher’s *frame of reference*. This term captures an image of the framework underlying each person’s construction of his or her particular view of the world. Jack Mezirow’s discussion of adult learning defines the frame as a “meaning perspective”; he describes it as “the structure and assumptions and expectations through which we filter sense impressions” (2000, p. 60). Likewise, constructive developmental psychologist Robert Kegan equates a frame of reference with a “way of knowing” (2000, p. 48). By stating that a frame of reference “involves both a habit of mind and a point of view” (p. 52), Kegan seems to be in agreement with Mezirow’s formulation.

Frame of reference is a person’s epistemological stance; as such it provides support for the person’s theories and actions. From infancy, humans construct their frames by making meaning and acting upon both meanings and understandings. It is difficult for any individual to be aware of the frame itself as he or she regards the world; it is as if both the window and the frame are transparent. A window presents an opportunity to look out on the world from the inside, but the frame itself necessarily tends to limit what is seen. One of the special complexities for teachers is that not only are their

own frames of reference invisible to themselves but they also may be unaware of the presence and power of each student's own frame of reference. The frame of reference is a way of knowing that filters experience and influences both teachers' and students' learning.

Unlike a wooden frame, this metaphorical frame of reference is not only invisible but also flexible and expandable. The frame may be changed over time by both experience and learning (Kegan, 2000, p. 48). For example, to understand something new about a science concept like relative motion, a learner screens the information through his or her frame of reference, informed by prior knowledge, experience, and beliefs. And in the process of learning about relative motion, the frame of reference itself may actually need to shift to incorporate new understanding.

Exploring the kinds of changes that might occur when one learns and absorbs new information, Kegan makes a distinction between *informational learning* and *transformational learning*. He defines informational learning as that which "serves the absolutely crucial purpose of deepening the resources available to the existing frame of reference." Transformational learning, on the other hand, "reconstructs the very frame" (Kegan, 2000, p. 49). In the science example, a learner might seek deeper understanding of relative motion through an extended learning experience, building on what she already knows and increasing her knowledge and skill. Such an effort would entail *informational learning* that adds to *what* she knows in an existing frame of reference; it does not necessarily change her perspective about relative motion in any foundational way. On the other hand, if new experiences cause the learner to question her basic assumptions and she begins to consider her point of view about relative motion in a new way, the learning

would be considered *transformational* because it shifts *how* she knows about this concept and changes the way relative motion is framed as a part of her world.

When informational learning is undertaken, the frame collects more inside its boundaries. But when the learning is transformational and involves a deeper shift in the way that something is perceived and understood, the frame itself may be required to stretch and grow. The learning process can serve both to inform and transform the frame of reference, even as the frame itself influences the learning. The filling and shifting of the frame of reference occur not only in student learning—as in the science example—but also in teacher learning.

Although the frame of reference concept is well accepted in the field of human development and is often considered essential to an understanding of adult learning and development, the literature on professional development for teachers makes sparse mention of it, and the term is rarely mentioned in articles about teacher development. Surprisingly, *frame of reference* is not even listed in the extensive subject index of the 2001 *Handbook of Research on Teaching* published by the American Educational Research Association. Yet the concept is occasionally referenced using other terms. Several researchers, for example, have investigated the relationship of a teacher's biography to his or her professional learning (Danielewicz, 2001; Feiman-Nemser & Floden, 1986; Richardson & Placier, 2001). Hilda Borko and Ralph Putnam, reviewing the research on teacher development, invoke an image similar to frame of reference with their term *lens*: "What is increasingly clear is that whenever teachers set out to adopt a new curriculum or instructional technique, they learn about and use the innovation through the lenses of their existing knowledge, beliefs, and practices" (Borko & Putnam, 1996, p. 863).

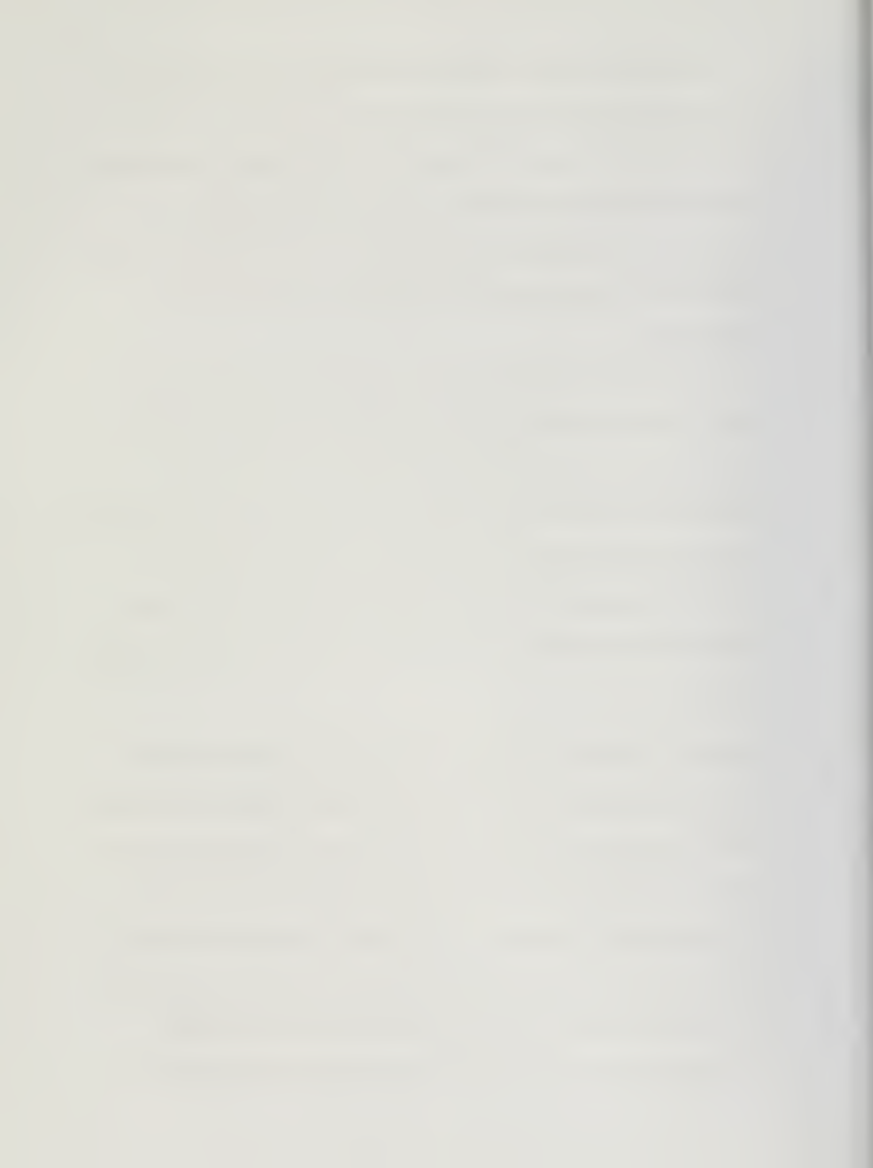


One of the few studies to address frame of reference as a powerful influence on teacher learning and decision making is Mary Kennedy's work in pre-service teacher education programs (Kennedy, 1999). She asserts that "teachers draw on these frames of reference to interpret the situations they face, make sense of what happens in their classrooms, and make decisions about what to do next" (p. 57). For Kennedy, a teacher's frame of reference functions constantly and invisibly both in her learning and her decision making.

It seems obvious and sensible that the existence and function of a frame of reference should be considered a significant variable in any thoughtful appraisal of teacher development. Professional development would be enriched by a better understanding of a teacher's frame of reference and its role in professional learning. From the start, any teacher's growing frame of reference has a long-term influence and contributes to a personal view of what it means to be a learner and a teacher, and the formation of that frame begins in earliest childhood with family, socioeconomic realities, and culture.

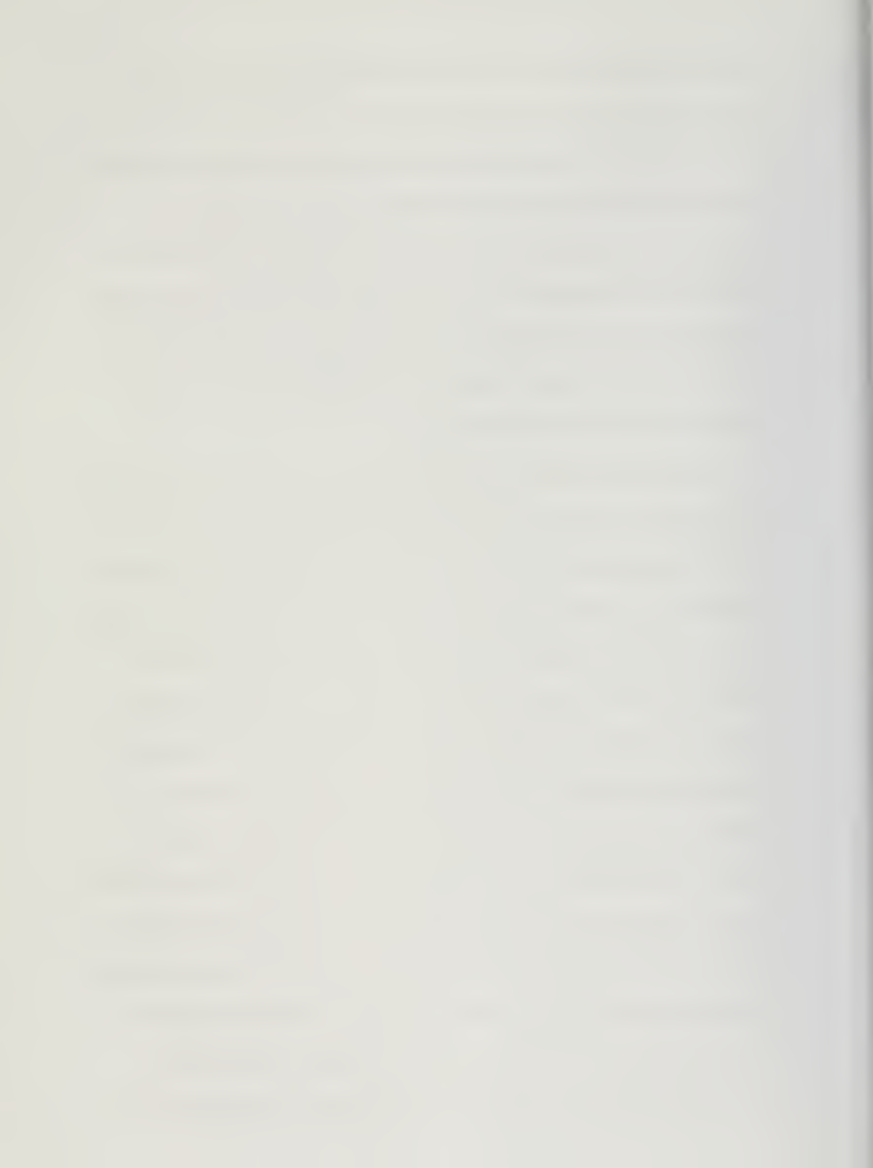
Construction of the Frame of Reference: Family, Socioeconomics, and Culture

The family is the first and most basic contributor to a frame of reference. A child absorbs the family perspective and attitudes about schools, learning, and teaching. Dan Lortie's 1975 classic sociological study of teachers documents a generally positive parental attitude among families of teachers: education is important, schooling is a priority, and progress in learning is expected. Lortie reports that teachers' families viewed a teaching career as morally acceptable and aligned with a public perception of teachers as "performing a special mission in society" (1975, p. 28). He notes that teachers "derive



status from a favorable view of their functions and tasks” (p. 13). Echoed by other studies since his work, such as Michael Huberman’s *Lives of Teachers* (1993), Lortie’s findings indicate that in choosing teaching, teachers embrace a career that is essentially conservative: their role maintains the values and perceptions of their families and communities. “The ways of teachers,” Lortie reports, “are deeply rooted in traditional patterns of thought and practice” (p. 24) and a career in teaching “tips towards continuity rather than change” (p. 54). Although some teachers may choose teaching with the hope of improving society through the education of many individuals, their work tends to preserve rather than change broad social norms.

As the frame of reference is being shaped, socioeconomic realities contribute their powerful influences. Many teachers spent their childhood in working- or lower middle-class milieus (Danielewicz, 2001; Lortie, 1975). For these children, school was not just an option; it was a necessity, often a route to a higher standard of living. In these families, parents often did not themselves work toward college degrees but encouraged their children to go to college. They also approved of teaching as a financially wise career choice. Lortie comments, “Teaching is clearly white-collar, middle-class work, and as such offers upward mobility for people who grew up in blue-collar or lower-class families” (p. 35). More than 15 years after Lortie’s research, Huberman’s study of teachers in Europe reinforced many of Lortie’s findings. It documents the powerful initial appeal of teaching as a way of earning a living and becoming financially independent (Huberman, 1993, p. 119). Jane Danielewicz’s more recent story of choosing to become a teacher offers a personal echo of Lortie’s and Huberman’s sociological research: “My salary could lift me out of the lower middle class” (Danielewicz, 2001, p. 33). It is apparent that socioeconomic conditions do clearly influence the young learner’s initial



frame of reference about education and later may have a different impact on the decision to continue in teaching.

Cultural values and socioeconomic forces both underlie and reflect family attitudes as some of the primary components in framing teachers' perspectives on the world. Cultural traditions, norms, and power relationships are worked out through interactions of race, ethnic background, gender, sexuality, and class. Teachers' cultural standpoints inevitably involve issues of power and often strongly influence the way a teacher perceives the tasks of learning and teaching (Delpit, 1995; Ladson-Billings, 1994; Lee, 1991; Nieto, 2003; Tatum, 1997). Research on race and racial identity describes the process of forming one dimension of a cultural standpoint. As one example, Peggy McIntosh's writing reveals white privilege as invisibly embedded in many white teachers' frames of reference (1989). This phenomenon of unearned privilege (the birthright) influences a teacher's way of knowing. Still, the teacher is often unconscious of the way such privilege informs his or her point of view. The evolution of racial identity influences both white teachers and teachers of color, playing a differentiated role in the progress of their learning and, later, their teaching decisions (Tatum, 1992, 1997). This brief reference to race as one dimension of a cultural point of view exemplifies an underlying reality; both invisible and visible values sown by a teacher's original cultural context play an influential role in shaping the construction of his or her frame of reference.

Becoming a Learner and Observing Teaching: Using and Enlarging the Frame

The primary influences on a frame of reference—family, economics, and culture—create perception boundaries for the experience of school. In school, whatever happens to a

student is experienced through the frame of reference and schooling itself further shapes the frame in a transactional way. The formative influences of school affect both mind and heart. "School was both a painful and an exhilarating experience for me, both empowering and demoralizing" (Nieto, 2003, p. 27). This formative phenomenon is particularly powerful for future teachers because the experience of school is twofold: through observation, a future teacher forms an image of "teacher" and through learning, he or she develops a sense of self as a learner.

Like all learners, teachers have unique learning preferences and approaches that begin in infancy, evolve through early schooling, and persist into adult learning. Research on learning style, cognitive preference, and multiple intelligences make the case that each individual has marked preferences, strengths, and weaknesses in perceiving, processing, and integrating new information and ideas (Gardner, 1983; Kolb, 1984; McCarthy, 1982; Silver, Strong, & Perini, 2000). There is an important connection between a teacher's learning style and her teaching approach because the affective, cognitive, and environmental preferences of teachers in childhood and adult learning do seem to influence the practice of teaching. Memories of being a learner may also serve as a teacher's guide to making instructional choices. Sometimes, teachers seem to choose approaches that are both familiar and comfortable, as evidenced when they explain a pedagogical decision by saying, "I teach it this way because that's the way I learn it best." Negative memories serve a role as well. Teachers may justify their choice to emphasize an approach to a topic by commenting that it was not used enough when they were learners (Nieto, 2003). Finally, they may be reticent to use instructional approaches that they remember as having clashed with their own learning needs.

A teacher's unique profile as a learner also influences his or her ongoing professional development. Teachers often gravitate toward professional learning that matches their preferred style; they gain insights and learn new information that may reinforce or expand their own approach to learning. Some kinds of professional learning can also help teachers become aware of their own style, asking them to step aside and actually see that aspect of their own frame of reference. When a teacher becomes conscious of his or her own approach to learning, it often serves the important purpose of elucidating the way personal style affects pedagogical decisions. Insights about learning and pedagogy begin forming in childhood through the experience of being a learner but the learning experience is only part of the picture. The other part is supplied by the observations a student makes of teaching itself.

A future teacher engages in a long and usually unconscious "apprenticeship-of-observation" (Lortie, 1975, pp. 61–67). This term and concept, originally developed by Lortie, has been used repeatedly in the literature on teacher development to characterize the remarkable guiding power of a teacher's own experience of being taught (Greene, 1991; Kennedy, 1999). Maxine Greene, in her essay on the personal reality of teaching, offers a geological metaphor, asking teachers to reflect back in time and excavate "the ways in which the meanings of teaching (and schooling) were sedimented over the years" (1991, p. 11). These accumulated observations develop an image of "teacher" in a beginning teacher's frame of reference. This kind of image is necessarily limited by the fact of being a student, because young learners are not privy to the full range of their teachers' thinking and decision making. Teachers-to-be, writes Lortie, have a relatively simplistic notion of teaching since the apprenticeship-of-observation is "not likely to instill a sense of the problematics of teaching" (1975, p. 65). Even so, a teacher's early

impressions of being taught are quite durable and contribute substantially to a strongly held perspective about what it means to be a teacher. Writing about teacher development more than thirty years after Lortie's study, Deborah Ball and David Cohen point out that the long history of a teacher's past schooling offers a model that is "typically more potent than formal teacher education" (1999, p. 5). Borko and Putnam's review of the research on teacher learning suggests that "prospective teachers' knowledge and beliefs about teaching, learning, and learners are shaped by years of their own school experience and are highly resistant to change" (1996, p. 684). The impact of the apprenticeship-of-observation on teacher beliefs and practice is clearly demonstrated in these reviews, yet this powerful influence does not often seem to be factored into programs for professional learning.

Choosing to Teach: Rooted in Background

Family, culture, socioeconomics, and schooling not only contribute to the construction of a frame of reference, but also influence the decision to choose teaching and to take on the role of teacher. "Teachers bring their entire autobiographies with them: their experiences, identities, values, beliefs, attitudes, hang-ups, biases, wishes, dreams, and hopes" (Nieto, 2003, p. 24). Sonia Nieto's recent work chronicles the history, hopes, and challenges in the stories of a diverse group of teachers. As the leader, she joined the group in writing her own reflective autobiography and noted that "all (narratives) revealed in some vital way how our background and experiences had thrust us into teaching" (p. 27). The intimate connection between personal history and the decision to teach is documented in well-known stories about the choice of teaching: *Teacher* (Ashton-Warner, 1963), *Up the Down Staircase* (Kaufman, 1965), *Being with Children* (Lopate, 1975), *Ordinary*

Resurrections (Kozol, 2000). Again and again, these stories show the centrality of the *person* in the role of teacher. “We teach who we are” is the premise of Parker Palmer’s book *The Courage to Teach* (Palmer, 1998), and is ground for his central query: “Who is the self who teaches?” (p. 4). Palmer asserts that “good teaching comes from the identity and integrity of the teacher” (p. 10), underscoring the whole persona as central to the experience of teaching and to the students’ experience of learning. David Hansen also sounds the theme of “we teach who we are” as he discusses teachers’ conceptions of their role in teaching. “The role or occupation itself doesn’t teach students. It is the person *within* the role who *shapes* it [and] teaches students” (Hanson, 1995, p. 17). The decision to teach is likely to be bound up in a sense of self, the experience of learning, and a perception of the teaching role.

A beginning teacher’s image of teaching can reach back to the apprenticeship-of-observation and influence the decision to teach in two ways. On the one hand, it can motivate teachers to identify with their own admired former teachers and their teaching styles. As one teacher in Huberman’s study recalled, the experience of learning and the role modeling was positive: “I was crazy about one elementary teacher I had, and about everything that represented instruction and education in my surroundings” (Huberman, 1993, p. 117). By contrast, some teachers go into teaching in spite of their negative experience, motivated to do a better job than their own teachers did. They are few in number, Lortie reports, because teaching “is more likely to appeal to people who approve of prevailing practice than to those who are critical of it” (1975, p. 29). Huberman’s statistics show a similar picture: a tiny percentage of teachers choose teaching “to do better than one’s own teachers” (1993, p. 114). Reasons for choosing teaching most often cited in Huberman’s work tend to affirm the positive childhood experience of being a

learner in school and the influence of memorable teachers. Not surprisingly, the same variables that influence entry into teaching sometimes have long-term connections to the inservice professional learning that teachers later undertake (Placier & Hamilton, 1994). Whatever the reasons teachers have for choosing the profession, those reasons play out over the career, influencing both practice and susceptibility to new ideas.

A decision to teach is strongly influenced by an individual's past and also reflects the kind of professional engagement that a teacher wishes to have in his or her present work. Ayers (1989), Danielewicz (2001), Huberman (1993), and Lortie (1975), among others, have uncovered some robust elements in the choice of teaching as a profession. Love of children is most often cited as a primary reason to teach, with love of subject matter a strong second. Other common reasons include positive identification with relatives who are teachers, childhood dreams of becoming a teacher, or a wish to "make a difference" in the lives of children. Less noble, perhaps, but often very important are the contextual conditions that influence the choice of teaching. "Constraints," as Lortie labels them, or "material concerns," a category preferred by Huberman, have to do with economics, class, gender, age, absence of other options, or any confluence of life conditions that seems to move the individual toward teaching as a solution. Sometimes teachers report the choice of teaching as "accidental" or claim they "backed into teaching." Interestingly, a fairly significant category of teachers once claimed they would "never want to be a teacher" (Lortie, 1975; Huberman, 1993). Often, material circumstances got them into teaching and, once there, they discovered a sense of personal connection and investment in the role.

Perception of One's Role as a Teacher: An Evolving Personal Authority

After an individual has made the decision to teach, a teacher's initial sense of professional role is significantly informed by his or her background. The cultural, familial, and educational context of origin influences self-view as a teacher; it is the starting point for a beginning teacher's perspective on a role that evolves through a career in teaching. At the same time another underlying influence is at work: i.e., the evolving stages of inner development, as described by the adult development literature. Sharon Oja notes that "it is important to recognize that one's perceptions of school and classroom issues are filtered through one's own development stage lens" (Oja, 1991, p. 56). The filter of adult development is an integral layer of one's frame of reference, informing both self-view and the perception of others. Theories about the progression of adult development, and in particular the evolution of a teacher's sense of authority, add dimension to our understanding of teachers, their teaching, and their professional learning.

The Progression of Adult Development

A teacher begins to teach, assuming the role of authority in the classroom. At the beginning, novice teachers often report that this aspect of the role is quite challenging for them. Indeed, the evolution of personal authority is not only problematic for teachers but also a hallmark of adult development that underlies movement through a career in any profession. For the purposes of this study, theories of adult development and the research on career stage are used to focus on the developing view of self-as-teacher in relationship to the world of schooling. One key aspect of development is highlighted: the perception of personal authority and the relative weight given to external authority. Issues of

authority are naturally powerful in schools because teachers are leaders in classrooms; they are supervised by building principals, who are themselves guided by superintendents, established curricula, and boards of education. A teacher's sense of the balance between personal authority and external authority influences the kind of professional learning that a teacher may find salient and make part of his or her practice.

Theorists of adult development suggest stages or phases of growth that describe increasingly complex views of the self in relationship to the world (Belenky, Clinchy, Goldberger, & Tarule, 1986; Erikson, 1959; Gilligan, 1982; Kegan, 1982, 1994; Levinson, 1978; Loevinger, 1976; Perry, 1970). Researchers who have studied adult growth through the lens of structural developmental theory suggest hierarchical phases of change. William Perry (1970), for example, formulated several phases in intellectual development with a particular focus on his subjects' conception of knowledge and authority. He delineated a progression in early adulthood which moved from *dualism*—an unquestioning acceptance of a single source of authority outside the self—to *multiplicity*—an acceptance of diversity of opinion and authority—and eventually to a *contextual and relativistic view* of both knowledge and authority. Using Perry's developmental construction, we might watch for a teacher's shift in perception of authority. He or she might move from an acceptance of the principal and textbook as authorities telling what and how to teach, to more regard for his or her own authority on what is important to teach. In addition, the teacher might grow in his or her capacity to consider the complexity of the school context, the findings of research, the curriculum, and the needs and desires of the students.

The milestones of ego development postulated by psychologist Jane Loevinger (1976) add depth to this picture of meaning-making and personal authority. Oja asserts

that Loevinger's model of development is particularly adaptable to understanding professional development because the ego provides "the frame of reference that structures one's world and within which one perceives the world" (Oja, 1991, p. 41). The milestones of ego development describe "qualitative turning points . . . in an interrelated sequence of development" (Loevinger, 1976, p. 136). As an example, one milestone is labeled *conformist* by Loevinger, and occurs in a conventional stage of development characterized by a concern for external rules and social acceptability. Teachers in this stage of development may tend to base decisions on the principal's authority and/or the opinions of experienced colleagues. Loevinger suggests that a shift from the conventional acceptance of external authority to the next milestone is signaled by "an increase in self awareness and appreciation of multiple possibilities in a situation" (p. 19). Loevinger uses the term *conscientious conformist* to characterize this later stage that involves a conscious blend of a teacher's personal authority with a perceived external authority. In this stage, teachers may respect the authority of principals and colleagues and yet believe in their own power to make significant instructional decisions and pursue professional learning.

Shifts in a teacher's way of knowing and view of authority can also be understood through the scholarship of Mary Belenky, Blythe Clinchy, Nancy Goldberger, and Jill Tarule (1986). Building on Perry's (1970) constructivist progression of human development and the ideas of developmental theorist Carol Gilligan (1982), the authors introduce their own construct of development. They describe "five different perspectives from which women view reality and draw conclusions about truth, knowledge, and authority" (Belenky et al., 1986, p. 3). A relatively naive perspective that they term *received knowing* describes a position of believing that knowledge comes from outside

oneself, usually emanating from those with greater experience or power. A more evolved perspective is termed *constructed knowing*; it describes a stance of clearly established personal authority weighed consciously in relation to external authority. These theorists' contributions to understanding developing teachers is particularly important because so many teachers are women. If a teacher seems preoccupied with a perceived "right way to teach" and tends to cede authority to those outside herself, she may be coming from a standpoint of *received knowing*. In this case her professional learning may be constructed in response to what the "authorities" think is important to learn. On the other hand, a different teacher may exhibit a more nuanced, personally constructed view of teaching and learning that synthesizes a range of priorities and provides a multidimensional basis for action. Such an evolving sense of personal authority may lead the teacher to more self-directed professional learning.

Robert Kegan's (1982, 1994) formulation of youth and adult developmental phases, termed *constructions of the self*, builds on the work of Piaget and shares Perry's and Loevinger's structural developmental roots. Kegan adds yet another level of complexity to our view of the developing teacher and his or her sense of authority. His constructive developmental framework postulates five "orders of mind" that describe "a succession of qualitative differentiations of the self from the world" (Kegan, 1982, p. 77). A constantly evolving shift in "subject-object relations" drives these progressive differentiations of self, allowing the self to embrace greater complexity. The relation of the self to the world can be understood as a continual movement from "embeddedness in" to "relationship to" (p. 77). In early childhood, the first order of mind is grounded in sense perceptions. Very young children are *subject to* all aspects of their world; they have little *objective* reality because they are so thoroughly identified with their own

perceptions. With each new differentiation, the self gains greater recognition and control over what can be considered *object*. The second order, then, signals a shift to a clear awareness of self and other. This stage typifies most of the development seen in early schooling, where children recognize, with increasing sophistication, what is truly under their control; yet they continue to be *subject to* that which surrounds them.

As adults, teachers are most likely to inhabit the third or fourth order of mind in making meaning of self and the world. This has particular bearing on their developing view of the distinction between their internal authority and external authority. In the third order of mind, which Kegan describes as *socializing* or the *interpersonal balance*, adolescents or adults develop relationships with others in their world and can “coordinate several points of view with a sense of their own role within a social structure” (Hammerman, 2002, p. 18). Teachers in the third order, for example, can perceive many people and ideas *objectively*, outside of themselves. Yet they may be *subject to* the social network; as researcher Jim Hammerman describes,

they might be torn apart by competing roles or expectations from important external others. . . . At the Third Order, people may be ‘made up by’ other’s expectations, responding either by cooperating or rebelling, but clearly in reaction to these expectations.” (p. 19)

Teachers whose view of self in the world can be characterized by the third order may define their own pedagogical decisions in response to the opinions and desires of administrators and powerful colleagues. They may struggle to ground their decision making in their own sense of authority weighed thoughtfully with what others think. Throughout a career, the developmental progression may continue, allowing a teacher to gain new perspective from which to make decisions.

This next shift in Kegan's schema is to the fourth order, which he describes as *self-authoring* or the *institutional balance* (1982, pp. 94–95), and it represents the development of a greater capacity to maintain one's sense of personal authority in the context of many perspectives. Teachers at this level make comments about their thinking and their decisions that reveal a careful sifting-through of their own beliefs and experience. They are also more capable of considering research relevant to teaching and learning and bring to bear on their own experience. The fourth order is evident when teachers make decisions that represent a conscious balance between what they know and believe to be true and what others espouse and practice. Kegan's orders of mind provide a perspective on an emerging sense of authority in the context of teaching where teachers increasingly exercise their own leadership in the classroom and respond individually to the leadership of others in their school and district.

The potential of professional development to make a difference in teacher learning is enhanced or limited by the developmental stage that a teacher has achieved. Sarah Levine's review of developmental theories and their implications in schools makes a key point about one of the driving forces in teacher growth. "Developmental theories remind us that people learn and grow when the need for learning and growth start from within" (Levine, 1989, p. 155). Inservice professional learning is more likely to result in successful learning if it is well matched to developmental levels; it may also move development along by creating a desire for learning and growth within a teacher.

The Progression of Career Stages

As with the larger phases of adult development, each developing stage of a teaching career brings resolution to some prior issues and ushers in new concerns. An appreciation

of the influence of career stage is particularly important to a study of professional learning because a teacher's level of experience and sense of personal authority are likely to affect what he or she is ready to learn. An early theory of career stage movement is Frances Fuller's delineation of "sequential and hierarchical levels of concern" (Fuller, 1969). This construct was used and widely disseminated through Susan Loucks-Horsley's analysis of teachers' use of innovation (1987; Loucks-Horsley & Stiegelbauer, 1991). Since that time, new theory and applications have evolved to focus on different aspects of the progression of teacher learning, thinking, and action (Berliner, 1994; Feiman-Nemser, 2002; Huberman, 1995; Richardson & Placier, 2001). Fuller's original contribution has remained robust over time, cited in the research on career development and validated as the basis for development of new theory (Feiman-Nemser & Floden, 1986; Loucks-Horsley & Stiegelbauer, 1991; Richardson & Placier, 2001). Huberman's work *The Lives of Teachers* (1993) built directly on Fuller's formulations and added nuance to an understanding of teachers' career stages.

Central to Fuller's approach is the notion of determining the focus of a teacher's concern. For example, a new teacher's overriding concern may be survival. In his study of teacher career phases more than 20 years after Fuller's initial work on levels of concern, Huberman calls this early phase *survival-discovery* (1993). He emphasizes the new teacher's basic concern of trying to manage a new role and stay intact while keeping a sense of enthusiastic openness to a role and a professional world that is unfamiliar and intriguing. In professional learning at this stage, the beginning teacher's focus is clearly on the self and a sense of authority in the classroom is generally nascent. For new teachers, professional learning may become a route to getting help with survival and beginning to construct a coherent sense of what teaching entails.

In the next career phase, *mastery or stabilization*, teachers' focus likely shifts away from concern with the *self* toward the *task* of teaching and a desire to acquire a greater pedagogical range. The teacher's sense of authority and role becomes more focused and solidified. Huberman describes the shift in authority at the mastery stage: "One is more able to establish realistic limits, and to have them respected, while retaining more assurance and spontaneity" (1993, p. 7). Teachers who are entering the mastery stage may view professional learning as a resource for new ideas and approaches to add to their repertoire; they tend to locate new learning within a growing construct of their teaching role and expertise.

In a fully developed phase, Fuller suggests that teachers' concerns are more open-ended and become more consciously and decisively focused on the "impact on students." In this phase, the teacher shifts from a main focus on self and teaching practice to a strong awareness and interest in students' learning. Loucks-Horsley identifies the concern in this phase as *consequence*, signaling the teacher's attention to the effects of his or her actions on student learning (1991). Huberman concurs with the description of this shift and adds an emphasis on "experimentation and diversity" in the service of more flexibly addressing student needs. For teachers in this stage of their careers professional learning may offer opportunities to dig deeper into understanding the wide range of student learning. They may be able to consider how their pedagogical decisions address different learning needs and strengths, and they may shift their own role toward empowering learners.

The literature on career stages adds to a complex picture of teacher development and certainly deserves consideration as a support for professional learning. Accumulated teaching experience and the unique progression of adult development combine to create

the powerful inner reality that a teacher brings to professional learning. Huberman's research on the different phases of a teacher's career places this inner combination in a dynamic relationship to external reality. He describes development as a "dialectical process in which a person operates in a state of tension between internal (maturational and psychological) and external (cultural, social, physical) forces" (1993, p. 19). This tension creates a level of interest and a readiness to acquire some information but also legitimates ignoring other ideas that simply do not seem salient at the time. There is a kind of "filter in, filter out" function that operates invisibly in each teacher and changes with time, experience, and maturation. This picture of the underlying influences in teacher learning is complicated by the currents of inner development and the progression of career stage, yet it becomes even more complex when the forces of context are brought into consideration.

Context: A Powerful Influence on Teacher Development

Context matters.

—Little & McLaughlin, 1993

Political and social trends, public mandates for school curriculum, organizational structures of schools, socioeconomic of the community, and the characteristics of students in a given classroom—all these factors and more contribute to the context of a teacher's work. Furthermore, these contextual elements affect a teacher's pedagogy. The impact of context on teaching has been acknowledged and researched ever since Phillip Jackson published *Life in Classrooms* in 1968 (Hargreaves, 1995; Johnson, 1990; Lieberman & Miller, 2001; Little & McLaughlin, 1993; Marshall, Sears, & Schubert, 2000; Sarason, 1996). Contextual factors not only affect teaching but can also powerfully influence professional learning and pedagogical change, even though it is more difficult

to discern and identify their effects upon teaching. In their extensive review of the research on teacher change, Virginia Richardson and Peggy Placier conclude that although the influence of context is undeniable, the relationship between school contexts and teacher change is “complex and ambiguous” (2001, p. 291). Nonetheless, the pressures and supports that may operate in a teacher’s professional context must be explored for a full appreciation of their influence on professional learning.

The demands of American public education in the 21st century shape every aspect of the broad context of teaching. States have responded to national demands with specific requirements and guidelines that local schools must follow, further defining the conditions under which teachers must teach. In Massachusetts, where this study was conducted, the state has provided curriculum guidelines and a mandated assessment schedule that has increased pressure on public school teachers since 1993. The teachers in this study were required to be responsive to the state curriculum and testing; that expectation is significant but is only one among many strong contextual influences on their professional learning.

The context of teaching is also powerfully affected by the way that American schools are structured. All teachers are affected by general factors such as the number of school days in a year, the length of the instructional day, class size, each teacher’s total student load, the size of classrooms, scheduled blocks for certain subjects, assigned classrooms that tend to prevent association between teachers, and so forth (Jackson, 1968; Lortie, 1975; Sarason, 1996). Sarason notes in his critique of school culture and change that the educational constraints of structure may be lamented but they are neither deeply questioned nor easily altered (1996, pp. 9–14). The extent to which an individual

teacher feels the need or ability to cope with school parameters may well affect what he or she seeks and retains in professional learning.

Students are a significant part of any consideration of context. The age, number, background, knowledge, beliefs, and aspirations of the students become constant and formative forces in the classroom where a teacher works (Borko & Putnam, 1996; Little & McLaughlin, 1993; Sarason, 1996; Zeichner & Gore, 1990). Students are not only influenced by the teaching; they are also themselves unwitting daily change agents. As Richardson and Placier point out, “teachers and students engage in a process of mutual socialization that changes the teachers’ approaches, language use, expectations, and instructional methods” (2001, p. 924). In professional development opportunities, teachers often look for specific approaches to use with the particular students they are teaching.

In each school district, the context of teaching is affected by local factors: the socioeconomics of the community, the expectations and involvement of parents, the availability of professional development opportunities, the leadership in a building, and the quality of experience and commitment among teachers in a school faculty (McLaughlin, 1993; Richardson & Placier, 2001; Rosenholz, 1989). The strength of collegial relationships in a school has proven particularly important in the consideration of teacher learning. In the last ten years, research on the quality of professional interactions in schools clearly documents the positive effect of building a *learning community* that supports both teachers’ and students’ learning (Cochran-Smith & Lytle, 2001; Darling-Hammond & Sykes, 1999; Eaker, DuFour, & DuFour, 2002; Elmore & Burney, 1999; Johnson, 2004; Richardson, 1994; Schmoker, 1996). Not surprisingly,

what is professionally satisfying and sustaining for teachers is also positively correlated with student achievement (Newman & Wehlage, 1995; Schmoker, 1996).

In some schools and districts contextual factors are perceived as supportive and even facilitative of teachers and teacher learning. Sadly, in too many places variables combine to create a context that constrains what teachers are able to do and learn (Placier & Hamilton, 1994). Much literature documents conditions unsupportive of teaching and teacher growth (Goodlad, 1984; Jackson, 1968; Johnson, 1990). In Susan Moore Johnson's 1990 research on teachers at work, she decries scarce opportunities for professional learning in education compared with other professions. She disparages the "institutional neglect" of teacher learning (1990, p. 252) and calls public schools "wastelands of adult learning" (p. 287). Twenty years after the original publication, Sarason revisited his book, *The Culture of School and the Problem of Change* (1976), and expressed continuing concern about the unfavorable cultural conditions of teachers' work. He pointed out that supportive conditions for professional learning must be available to teachers, asserting that "teachers cannot create and sustain contexts for productive learning [for their students] unless those conditions exist for them [the teachers]" (1996, p. 367). Indeed, common sense would predict that teacher learning and student learning are mutually enhancing. Even so, too many teachers find themselves working in environments where the pressures are high and the opportunities for professional growth are inadequate. In such situations, teachers may pursue *any* kind of professional learning looking for strategies to help them cope with challenging conditions.

Whether the combined variables of context are favorable or unsupportive, there is no question that context matters to both student and teacher learning. For the purpose of

this study, the availability and quality of professional development is a dimension of context that deserves closer consideration. Johnson (1990) correctly points out the relative paucity of opportunities for professional learning in education compared to other professions. Various kinds of professional development programs have been made available to practicing teachers over the past 50 years. In many public school systems, opportunities for professional learning have been scant; yet in other districts there have been extensive (and expensive) offerings for teachers to continue their learning. The following review of professional development programs highlights a shift from more traditional approaches that were the norm in the 1950s, 1960s, and 1970s to reform-oriented approaches that began to gain ground in the 1980s and 1990s and are now prevalent in many American school systems.

Traditional Approaches to Professional Development

Many educators today believe that what was—and sometimes still is—commonly offered to teachers as “professional development” has been largely ineffective in developing teacher thinking and practice in the service of high-quality teaching (Darling-Hammond & Sykes, 1999; Joyce & Showers, 1980; Lieberman & Miller, 1999). From a Canadian perspective, Michael Fullan describes the efforts to effect educational change as a 30-year “uphill battle” with profoundly disappointing results (1993, p. 1). In Willis Hawley and Linda Valli’s 1999 review of 20 years of research on professional development, the authors conclude, “Research confirms the widespread belief among educators that conventional strategies for professional development are ineffective and wasteful” (1999, p. 128). Too often the results of professional development can be characterized by the

following statement: “Most teachers have a shelf overflowing with dusty vinyl binders, the wilted cast-offs of staff development workshops” (Ball & Cohen, 1999, p. 4).

Conventional professional development produces little growth for many reasons. Chief among these is an inadequate understanding of teaching and learning among those who sponsor professional development. “Teaching [was] essentially conceived as the skillful transmission of pre-organized knowledge” (Devaney & Sykes, 1988). This traditional view, known as a “delivery” model of teaching, rests on an equally inadequate view of learning. Learning has often been seen by teachers, administrators, and policy makers as relatively passive, with the learner as a recipient of presented facts, concepts, and procedures (Joyce, Bennett, & Rolheiser-Bennett, 1990; Lieberman & Miller, 1999; Richardson & Placier, 2001). For years these traditional conceptions of teaching and learning have prevailed in school classrooms. With remarkable tenacity, these perspectives on learning and learners have also influenced professional development structures and opportunities for teacher learning.

Traditional “transmission” models for teacher learning often presume what Rebecca Corwin (Corwin, 1981) and Thomas Guskey and Michael Huberman (Guskey & Huberman, 1995) describe as a “deficit” model of professional development. These programs for teachers are calibrated to fill gaps, make up for inadequacies, and move the teacher toward a predetermined level of a narrowly defined teaching skill. The power relationships implicit in these programs put the teacher clearly in a one-down position: “Someone outside the classroom makes decisions about what someone inside the classroom should do” (Richardson & Placier, 2001, p. 907). This *transmission* (or “outside-in”) approach to professional development places teachers in a passive, absorbent learner role, frequently in the same way that teachers often treated their own

students. The outcomes for teachers of this kind of professional development have generally not been salutary; there has been little enduring, worthwhile change in pedagogy and knowledge through the medium of this traditional approach to professional development.

Reform Approaches to Professional Development

Reform models for professional development have been created over the past thirty years are a response to the dismal results of past practice. Growing expectations for the achievement of all students and an increasing demand for excellent teaching have also influenced the development of new models (Ball & Cohen, 1999; Borko & Putnam, 1995; Cochran-Smith & Lytle, 2001; Cohen, McLaughlin, & Talbert, 1993; Hargreaves, 1995; Joyce & Showers, 1980; Sykes, 1999; Thompson & Zeuli, 1999). These newer models¹ are grounded in conceptions of teaching and learning that differ from the conventional professional development models, and that claim better results in influencing the quality of decisions made by teachers.²

In reform-oriented programs of all kinds, learning is not a matter of receiving information passively; it is an active process of making meaning that brings past experience into contact with new information. Teaching is considered to be an equally active endeavor. Imbued with reform views of change, Fullan describes teachers as being “in the business of continuous innovation and change” (Fullan, 1993, p. 4). Of all the variables that contribute positively to the educational enterprise, Fullan’s approach

¹ For a more detailed description of different reform models of professional development, see Sterling, (2003b).

² See, for example, *Cognitively Guided Instruction*, *Summermath for Teachers*, *Talking Mathematics*, and *Project Impact*.

underscores the need for teachers to be “active learners who continuously seek, assess, apply and communicate knowledge as reflective practitioners throughout their careers” (p. 115). Professional development programs based on reform principles consider the teacher a decision maker. These decisions are complex and often must be immediate. Teachers must “observe, interpret, reach conclusions, and act based on what they know in the situation” (Lampert & Ball, 1999, p. 38). It makes sense, then, that reform-oriented programs are aimed at active learning in the service of raising the capacity of teachers to make well-informed decisions.

Many reform-oriented professional development programs share common characteristics that embody their beliefs in active learning and informed decision making:³

- **These learning opportunities engage teachers in focused investigations of their own classrooms** with attention to the evidence of their students’ learning. Teachers may investigate problems of practice, students’ conceptual misunderstandings, and/or gaps in student learning. The investigative process is individually driven, collectively supported, and deepened through reflection (Calhoun, 1994; Cochran-Smith & Lytle, 2001; Danielewicz, 2001; Lampert & Ball, 1999; Sagor, 2000).
- **Exposure to knowledge from research and exemplary professional practice** enlarges a teacher’s inquiry into his or her own personal practice (Borko & Putnam, 1995; Cochran-Smith & Lytle, 1993; Guskey & Huberman, 1995;

³ For a full discussion of characteristics common to reform models of professional development, see Sterling, (2003a).

Huberman, 1995; Rodgers, 2002; Saphier & Gower, 1997). This access to perspectives outside the teacher's immediate focus is crucial because it supports a teacher's concern and provides new information in a timely, relevant manner. Furthermore, the teacher then becomes part of a wider professional community.

- These reform programs require teachers to *develop, conduct, and reflect on teaching experiments* grounded in the examination of student learning and anchored by informed decisions about possible teaching approaches. In a way, the teacher takes the role of scientist by experimenting, examining results, and refining next approaches (Blythe, Allen, & Powell, 1999; Glanz, 1998; Langer, Colton, & Goff, 2003; McDonald, Mohr, Dichter, & McDonald, 2003; Rodgers, 2002; Schmoker, 1996).
- For continuous learning, an **engaged professional community supports this investigative, reflective approach to teacher development** and contributes to sustaining it over time (Darling-Hammond & McLaughlin, 1996; DuFour & Eaker, 1998; Fullan, 1995; Lieberman & Miller, 2001; Little & McLaughlin, 1993). For changes in practice to endure, more time is required than most people acknowledge. Educators like Charles Thompson and John Zeuli make the case for a "greatly lengthened time horizon" (1999, p. 370), citing the months and years that are needed for deep, enduring change in teacher knowledge, beliefs, and practice.

Sponsors of reform-oriented professional development believe that when all the conditions described above are present for teachers there is a greater chance of thoughtful changes in the quality of teachers' decision making. Presumably, such teacher growth

yields beneficial results for student learning. These characteristics of reform-oriented programs are not only aimed at improving student learning, but are also responsive to teachers as adult learners; thus they reflect what is known about the best of adult learning.

Adult Learning and Reform-Oriented Professional Development

A review of the literature on adult learning suggests four key attributes of adult learning that intersect compatibly with the major characteristics of reform-oriented professional development:

- Adult learners draw upon personal experience and prior knowledge as they pursue self-directed, problem-centered learning (Knowles, 1980; Merriam, 2001; Rossman & Rallis, 1998; Tennant & Pogson, 1995).
- Adult learners grow through an active, iterative process of applying ideas and strategies to their immediate work setting (Caffarella, 1994; Merriam, 2001; Nelson & Hammerman, 1996).
- Adult learners gain significant depth and retain learning through analysis and reflection (Brookfield, 1988; Schön, 1991; Stanley, 1999; Zeichner & Liston, 1987).
- Adult learners benefit from engagement with a community of other adult learners to deepen and sustain learning (Heller, 1997; Weathersby & Tarule, 1980).

Oddly, it appears that the literature on adult learning is not often referenced by those who write about teacher development. However, a few researchers have made some connections (Day, Calderhead, & Denicolo, 1993; Sprinthall, Reiman, & Thies-Sprinthall, 1996; Weathersby & Tarule, 1980). As adults, teachers are learners who bring

much to the learning situation, *and* they have problems of immediate concern to themselves. Teachers in an adult learning process need time to experiment, analyze, reflect, and refine practice. Finally, teachers benefit from the kind of adult, collegial dialogue that promotes a thoughtful consideration of the complex act of teaching. Some reform-oriented programs for professional learning are beginning to incorporate an understanding of the teacher as adult learner. Such opportunities show promise largely because they rest on a sound understanding of active teaching and learning, they challenge a teacher's thinking and practice, and they respect both the individuality and the agency of each teacher.

Examples of Reform-Oriented Professional Development Programs

Programs that exemplify key characteristics of reform-oriented professional development for teachers and incorporate attributes of adult learning are found in many subject areas, particularly in mathematics and writing. Summermath for Teachers, Cognitively Guided Instruction, and Talking Mathematics are examples of professional development programs that cast teachers in the role of mathematics learners. Teachers deepen their own conceptual understanding of mathematics and at the same time make instructional decisions from a more informed perspective. *Process Writing* (Calkins, 1994; Graves, 1983) and writing programs such as those described by Peter Elbow, Mary Kennedy, and The Bard Institute for Writing and Thinking, also engage teachers as learners of the subject they teach. Each teacher does an extensive amount of personal writing during the program (Elbow, 1981; Kennedy, 1999). Reflection on instructional techniques, their own writing process, and their experience of a gradual development of writing skill is then available to inform the quality of teachers' decision making in the classroom.

Some reform-oriented models are not confined to one content area, yet are based on the same principles of active, adult professional learning. *Action research* projects (Calhoun, 1994; Cochran-Smith & Lytle, 2001; Glanz, 1998; Richardson, 1994; Sagor, 2000) challenge teachers to become active investigators of teacher-defined problems in learning and practice. They must examine evidence of student learning, consider professional knowledge about the identified concern, and collaborate with colleagues to reflect and decide on next steps. Variations on the original models of action research have become increasingly evident in teacher conference offerings and in professional publications for teachers.⁴

Studying Skillful Teaching, the course taken by the five teachers in this research study, is another example of professional learning that is different because it is not intentionally subject specific. Instead, it is interdisciplinary and focuses on pedagogy in the settings where participating teachers and learners are engaged.⁵ The course has many of the characteristics of reform-oriented professional development and includes attributes important to adult learners. In particular, teachers are expected to bring their prior knowledge to an encounter with new information and then use that fruitful intersection to decide on refinements to try in their practice. Participating teachers are challenged by reading research in the field and are supported by ongoing professional collaboration that emphasizes analysis and reflection. Whether subject-specific or more generic, professional development courses, institutes, workshops, and study groups grounded in the kind of reform-oriented principles discussed earlier with attributes that respond to the

⁴ See recent conference and publication listings from national and regional branches of Association for Staff Development, National Standards Project, Teachers College Press, and so forth.

⁵ See the description of the course in chapter 2, and the course description in Appendix A.

needs of adult learners are acknowledged to be more successful than conventional approaches. In a recent review of the research on teacher change, Richardson and Placier conclude that “the long-term, collaborative, inquiry-oriented programs with in-service teachers appear to be quite successful in changing beliefs, conceptions, and practices” (2001, p. 921).

What Teacher Learning Endures after Participation in a Reform-Oriented Program?

It appears that the reform-oriented qualities of Studying Skillful Teaching, along with the respect accorded the participating teachers as adult learners, may have produced some worthwhile pedagogical change. The five teachers in this research study completed the course with success, as evidenced by their in-class discussions and written work. They also filled out course evaluations to describe the impact of the course on their learning. The teachers’ engagement in the course was strong; their response was very positive. However, as with many professional development opportunities, those who offer such programs do not typically know what pedagogical changes endure beyond the end of the course.

What truly endured for these teachers? Why were particular aspects of Studying Skillful Teaching important enough for teachers to take them into their minds and make them part of their practice? The designers of professional development courses for teachers often focus mainly on articulation of the content and goals of an institute, course, workshop, or study group. Yet underlying influences and subtler, more personal interactions may have a strong effect on what teachers actually take away from such opportunities to learn and grow in knowledge and practice. Those influences (often difficult to discern) deserve to be understood more fully and taken into account. A

balance must be struck between attention to the structure and intentions of a professional learning opportunity and respect for the experiences and mindsets of the teachers. I have come to believe the fulcrum of that balance must be the sense that teachers make of their learning: “Teacher change may not be captured in the [professional development] experiences the teachers have engaged in but in the meanings they have constructed” (Franke, Carpenter, Fennema, Ansell, & Behrend, 1998, p. 68).

Teacher voices and stories can bring greater specificity and understanding to the phenomenon of teacher learning. In the following chapters, portraits of the five teachers who participated in this research add human dimension to what is known—and not known—in professional literatures. The teachers’ experiences reveal the role that underlying influences played as they encountered important professional learning and used the opportunity to construct their own understandings. These stories of learning suggest some clear and direct implications for professional development that will be discussed in the concluding chapter.

3

**Jack Labany:
Using Objectives to Stay Focused
in the Stream of Events**

Jack Labany arrived at the opening session of Studying Skillful Teaching just after completing his first year as a high school home economics teacher. The course began in the summer and continued into the fall of his second year teaching at Branfield High. Because of his lack of experience, his principal encouraged him to take this course as part of the preparation and certification process. Jack settled easily into the room where the course met; his broad smile and jovial personality seemed to endear him to other teachers. Jack's questions and comments during course sessions addressed very basic aspects of the teaching role; his "can-do" attitude allowed him to apply ideas and strategies from the course to his daily classes at the high school.

Jack was just beginning his third year as a teacher when he volunteered to participate in this research study. Two years had gone by since I had seen him, and I was curious to find out what course learning had endured for Jack, especially because he had never taken education courses nor done student teaching prior to his classroom work. After an initial interview at the end of August, we planned my visits to Jack's classes to occur just before lunch so that we could have a chance to talk after class. I had imagined a quiet conversation during this time but instead the entrance to the cooking lab seemed like a revolving door. Students stopped by to ask questions, teachers dropped in to warm up their lunches in the microwave oven, and there was always chatter about sports and the ongoing construction at the high school.

The opening moments of one class illustrate the tone and pace characteristic of Jack's cooking classes:

Jerry, a senior, lingered near the open door of the cooking lab. Jack was both Jerry's coach and his teacher; he quickly noticed Jerry and came to the door. "Hey, how you doing?" Jack asked with a wide grin. Jerry ducked his head and spoke softly but the tone was unmistakably upset. Jack leaned in to hear; his face grew somber as he listened. He encouraged Jerry to stop by after lunch to talk things over. Later, Jack confided to me that Jerry had been "accused of something real serious. . . . He's got that on his mind." Jack added, "This school is pretty small, so around here everybody knows everybody."

The bell rang and Jack motioned for the incoming students to approach the cooking demonstration table, "All right, guys, here we go." Jack shifted the large bags of rice on the table nearer to piles of green and red peppers, bunches of scallions and parsley, and a few onions. Students gathered around, some sitting on stools, some standing and leaning with their elbows on the table. "The theme ingredient is rice. Remember the objectives for this lab that I talked about yesterday?" asked Jack. A slender black girl stayed at the periphery of the class, ignoring the admiring look from one of the boys. "Keanna, hi. Sit over here," Jack gestured and then continued in his rapid-fire, affable style. "What do we need to do with any vegetables we're going to cook with?" A student said, "Wash them." "Yes," answered Jack as he glanced over at a student in an orange soccer shirt who was sitting apart from the class. "How do we say that in Portuguese?" "*Lavar*," answered the student. Then Jack pointed to a red pepper, got the Portuguese name from one student, and asked another student to repeat it, still including the soccer player in his glance. "You guys all know José?" A few students

turned and nodded to the new student in the class, a tenth-grade soccer star fluent in Portuguese but limited in English.

A bustling at the door caused heads to turn; two students from the technology class arrived to videotape the cooking lab and were having trouble setting up the tripod. Jack gave them a quick hand, said hello to a student who had just come in, and then set the groups to work: "Use rice as the main ingredient, work together, use your culture, use your preference in preparation . . . and remember the rules of rice."

Thinking back over the class, Jack chuckled at what he had discovered since he had begun teaching more than two years before. "With high school kids, I didn't realize how much of the nonschool stuff you deal with . . . boyfriends, girlfriends, fights. They come to you with their problems." Jack shook his head, "It is like you're their father or their big brother or something. Every day, they put a whole boatload on your plate and I just want to teach them how to cut a tomato." I noticed that he seemed to enjoy the role of being involved in all the "nonschool stuff." In fact, Jack's lively interest in the students themselves originated in his background and informed his decision to teach.

What Makes People Tick?

Jack is fascinated by why people do what they do. He traces that interest back to high school, when he began to help his father with the family business in a small working-class city. Jack's Lebanese grandmother started renting out rooms to disabled veterans after World War II.

My grandmother had this big house and she had five kids. She put her kids on one side of the house. On the other side, my grandfather had a barbershop, the local doctor had his pediatric care, and a lawyer had an office. Now there were guys getting home from WWII who needed to be

close to the VA Hospital so she put them up in the rooms upstairs . . . and she gave them four meals a day.

After the children got older and moved away, Jack's father left the shipyards where he had been working, took over the business, and rented out additional rooms to a number of disabled adults. While he was in high school Jack lent a hand in between sports practice and schoolwork.

Jack's first attempt at going to college ended poorly, so he joined his father, working full-time at the family lodging house. "That's when I really took an interest in the family business," Jack said. "At first I thought it was just business—accounting and all that. I didn't realize that [the tenants were] mentally challenged and mentally disabled." Jack paused as he recalled a change in his perception. "These people are human beings, they have feelings. . . . When I really started working with them, I became fascinated by these guys."

After a while, Jack started college classes in the evening at a state college and enrolled in the social work program. Over six years he pursued a degree in social work, absorbed in learning more about what makes people tick. "You know, you can never feel what someone else is feeling, but it helps to try to understand where they are coming from."

Understanding where high school students are coming from drew Jack to teaching. "I was running a restaurant in the next town and coaching basketball here at the high school." He went on, "I really loved coaching but there was something missing. I wished I was in school with the students. . . . I wanted to know what makes these kids tick all day." Jack explained that he got into teaching one summer when the superintendent called to say that she didn't have anyone to teach home economics at the

high school. Tom Derida, the athletic director who had hired Jack as a coach, recommended that she consider Jack for the job, so she asked whether he would be interested. Jack was in the process of selling his restaurant and was about to get married. Although he didn't have any preparation in teaching, he decided to give it a try. "Now that I am teaching, I know what my students have been through in school all day. Boy, does it make a big difference in coaching them after school, a big difference," he explained. "When I see a kid who just went through four periods of exams, I take a little different approach on the ball field than I would if I wasn't in the building with him."

Jack's desire to understand people is also manifested in his deep valuing of what he terms "culture."

My mother is all Swedish and my dad is Lebanese. When I was in fifth or sixth grade, I told everyone that I was Swedish because it seemed more normal to the kids I hung out with. I really wish I had taken advantage of my other side and found out more.

Jack went on to say, "That's one of my regrets growing up; I didn't appreciate it enough. . . . My Lebanese grandmother died when I was in fifth grade." Jack now wishes he had learned enough Arabic to join the conversation in a local restaurant where his father meets Lebanese friends.

Jack went to the same high school where he now teaches. "Back then, it was probably the smallest public high school in the state. . . . It was almost like a close-knit family and that was great because everyone knew each other." However, Jack saw a disadvantage as well, "It was a white, blue-collar town and there was no diversity whatsoever." Today, that has all changed due to school choice. Currently, the high school has a population of 250 students; 60 percent are white and 40 percent are black, Latino, and Asian. Passing through the halls between classes felt like swimming in a moving sea

of different heights, colors, and adolescent conversations. Jack is enthusiastic about the change. “Now when I see all this culture, it’s amazing! I think of talking to these kids and saying, ‘Look around, look what you’ve got.’” Jack wants his students to understand and value that cultural variety. “I can’t stand stereotypes. I want to dig in and find out what is actually going on in a situation.” From Jack’s point of view, being involved and interested in one’s own culture and the culture of others “helps educate because you’re aware of what makes a person tick.”

The Impact of the Course: “Objectives” Provide a Missing Tool

Teaching initially appealed to Jack because it offered satisfying involvement with people, but the experiences of his first year made him realize how little he knew. At first, he relished the chance to “jump right into something without any preparation at all,” yet he characterized the first year as “out of control. . . . (I) went through a year of asking, ‘What was *that* all about?’” He described his preconceptions of teaching: “I thought the classroom setting was lecture, 40 minutes, take notes, test them on it, that’s it.” He imagined a supervisor saying, “OK, here is your curriculum. Make sure they learn all this stuff and go about it whatever way you can.” Successful teaching, Jack found out, was very different from what he had imagined.

After many of his classes that first year, Jack asked himself, “Was I going too fast? Am I getting across what I want to get across?” He went on to explain, “I’m always questioning, ‘Is that OK?’ Is that good enough?” He recalled that in the foods lab he would just tell students, “Go do it, figure it out for yourself. . . . Then I would tell them what they did wrong. It didn’t work. . . . I lost kids.” He went on to say that he tried to cram too much into a class period: “That’s what gets me in trouble; I try to cover every

detail.” He admitted that his approach was in keeping with his father’s philosophy, which he characterized with familiar phrases: “Preach it,” “Get it,” and “Pound it in.” In the cooking lab his father’s didactic approach was not working for Jack. Troubled by “losing kids” in both their understanding and involvement, Jack asked veteran teachers, “How do you guys do it?” He remembers that they said, “We break it down.” Jack reached to his coaching experience to explain to me what he realized was important: “You can’t just jump into a game, you know, and think you’re going to score a million points when you don’t have the plays.” He said somewhat wistfully, “After that first year of teaching, I wish[ed] I had some kind of playbook with these kids.”

Jack claimed that the most enduring teaching strategy he learned in Studying Skillful Teaching was a tool for planning instruction: *objectives*.

When I first started teaching, I just flew through a whole chapter. Students would look puzzled and I lost kids along the way. Now I realize that by breaking it into smaller steps, developing clear objectives and communicating them, it is a lot easier for students. . . . I do a better job sticking to specific plans and they know what they are supposed to understand and to do. Now they can all get involved.

In the course, *objectives* are defined as statements of specific student learning, outcomes that clearly describe what students should “know and be able to do” at the end of a lesson. For example, in a cooking lab an objective might be “Students will show that they know conversion of recipe size by halving and doubling recipe amounts accurately.” Objectives focus on student learning; they do not list topics to be taught. Jack said that when he first understood the role of objectives in teaching, he realized that more preparation might be needed but that “these little baby steps” would make him “feel more accomplished.” The concept and use of objectives, according to Jack, gave him the approach he needed to plan his instruction. During his second year and into his third, Jack

began to develop objectives based on chapters in a text, started communicating them to his students, and worked to stay aware of sticking to them throughout the class.

Objectives: Developing, Communicating, and Sticking to Them

A cooking class at the beginning of Jack's third year of teaching reveals signs of his evolving practice of working with objectives. The school was under construction, so most of the kitchen equipment was not yet hooked up. Jack figured that he could introduce what he calls "recipe basics" and demonstrate with a dish that didn't require cooking: a garlic spread. Fourteen students gathered in the demonstration area and eyed the ingredients and the cooking tools piled in the middle of the table. Jack reminded them that, the day before, they had reviewed safety procedures; he stated that this class would focus on recipes. The quick overview Jack gave his students revealed the way he worked to make his objectives clear:

Recipe skills—this whole next section—is going to take about two weeks. The next five chapters are on recipe basics. What I want you to get out of this for the next two days is (a) all you need to get out of a recipe and (b) guidelines to pick a recipe. For today, be listening for (a) recipe, (b) yield, and (c) TTT—that's tools, terms, and techniques.

Jack went into an explanation of recipe format and terminology, and then moved on to a demonstration with student volunteers. He coached some students to read the parts of the recipe and another group to carry out the recipe instructions. As the students prepared the garlic spread, Jack used cooking vocabulary in his running commentary and posed frequent questions about recipe information, format, yield, tools, and techniques. I noticed that Jack's instruction set the lesson in the larger context of a two-week time span, narrowed the scope of what was to be learned, and focused students' attention on

some specifics. Still, it was not yet clear how students should demonstrate knowledge of the three things he asked them to listen for.

Commenting on the class afterward, Jack compared his attempt to set out the objectives on recipe basics to “laying a foundation, kind of like the cement flooring.” Jack seemed relatively pleased with the way he and the students had stayed focused on his objectives. He attributed the success of this class to his choice of just a few points related to a larger topic and to having notes of his objectives nearby to glance at, if needed.

After this and other classes, we talked about Jack’s approach to developing objectives in advance. He relies on a home economics text as the source for all his explicit objectives. Jack explained that he reviews a chapter, selects objectives, and writes them down. “I find it much easier if I write it down. I never used to do that.” He recalled with some chagrin a visit in his first year by the assistant principal, who asked him about a lesson plan. “Lesson plan?” Jack responded, “I just follow the book. We’re on chapter 8.”

For the newer cooking lab on rice, Jack relied on the text, but he did what he calls “tweaking it” a bit. His variation from the text presentation reveals the evolution in his own decision making about what makes sense for students. Just beginning a new chapter on general principles of cooking grain, Jack explained that trying to cover the topic the way the text did “would have opened a whole can of worms. I wouldn’t have any control over it . . . grains, beans, barley, pasta.” Jack realized that it might be too much and thought, “Maybe I’ll just take rice and keep it simple. . . . I said to myself, what’s wrong with doing just one grain? One little objective.”

Thinking over the results of the class, he said, “By keeping it small—I was really pleased. . . . I got more out of that one objective than if I had seven or eight objectives.” Jack’s adaptation of material from the text showed his priority of slowing down and addressing a manageable amount of information in the available time.

It is one thing to develop objectives but another to communicate them. Jack tends to let his students know his objectives; occasionally, if he believes they are a little complex, he distributes a written version with some key vocabulary. Sometimes he sets up for a cooking lab the day before with verbal objectives and/or a short demonstration. “I give them the objectives and any questions . . . or I do something little to show what I want them to do and to understand tomorrow. I find it has been very helpful.” Reflecting for a moment on why he relied heavily on demonstration to communicate objectives, Jack said, “That’s how I like to learn; show me how to get there once and I’ve got it.”

Throughout our conversations, Jack mentioned the need to keep himself on track. Developing and communicating objectives, he believes, not only keeps students from getting lost but also keeps him from losing focus. “Objectives,” he stated, “keep me in control . . . not all over the spectrum.” Jack often describes his actions with the word *jump*: “I feel like I jump too much. . . . I find myself jumping too far ahead. . . . I’ll jump over something. . . . I want to jump in and show them.” Indeed, he is an energetic man with lots of ideas and interests, who speaks and moves in a rapid-fire style. Holding himself back is an effort and he claims that objectives help slow him down. In the cooking classroom, when students are doing a lab, he seeks to maintain an observer role: “I want to just watch and see what they can do. . . . Be that bird on their shoulder.” Sticking to his plans, from Jack’s point of view, is a matter of staying with the objectives

he has set for himself and his students within the busy atmosphere of the lab in full use as well as the time constraints of a 42-minute cooking class.

Looking at Student Performance to Find the Influence of Objectives

Jack and I looked for signs of the influence of his use of objectives on student learning in two ways. First, we debriefed each class I visited with attention to the objectives he had specifically written down. Second, Jack chose to have his class videotaped, which served two purposes: to give students experience in front of the camera in preparation for a cooking show and to give us a chance to watch a class together.

When we talked after each class, it was difficult for us to identify the influence of any one objective on a student's understanding or performance. This difficulty arose in part because we could not catch everything that was going on in each lab station. We could not easily separate out a single student's contribution to a group cooking project. At the end of several classes, Jack tried some summarizing questions in order to get a sense of what a few students learned.

When we viewed the videotape of the rice lab, Jack indicated how he was guided by his objectives in comments like, "See, I'm trying to get back to my second objective here." It was not clear to us whether the student he addressed actually understood what Jack was aiming for because the camera moved on too quickly. There was one point where we saw a clear match between what Jack set out as an objective ("Remember the rules of rice") and what we saw in student performance. Jack commented, "I was very satisfied with the way he [the student] explained how he did the rice over again. . . . I was impressed." We could see that the student knew the particulars of cooking rice, as evidenced both by his explanation and the quality of his group's final dish.

Our effort to trace the influence of Jack's use of objectives on student learning was too limited to produce any strong conclusions. Nonetheless, Jack was convinced that his use of objectives had improved his teaching and he believed that student learning was generally better as a result. The dialogue we had in the process of searching for influences challenged us both to think about what was important in teaching and learning. One interesting tension arose fairly often; I found myself trying to keep our discussions focused on Jack's explicit objectives. Jack, however, was eager to comment on all aspects of the students' learning and performance. He often took note of student personalities, behaviors, and comments that were related to aspects of learning outside of his written objectives. The other aspects that drew Jack's attention turned out to be indicators of his unwritten priorities that were just as important to him as those he had selected from the home economics text.

Beyond Written Objectives: Culture, Creativity, and Presentation

"One of my goals this year is to try to include cultures," Jack explained to me. Although the goal was not written in any of his objectives, it was obvious in his interactions with students. When students worked in groups on their rice dishes, Jack noticed that Keanna squeezed some fresh lemon juice and then soaked each piece of raw chicken in the juice. Stopping by to talk with her, Jack said, "In my family, we just washed raw chicken in warm water before cooking. Where did you learn this?" Keanna explained that her West Indian family uses lemon juice and she made it clear that she was going to stick to that way of preparing chicken. Later, when students in a different group questioned a certain way of preparing food, Jack explained, "Well, that's how they do it wherever they are from." Jack endorsed one group's initiative when they got together before the cooking

class to agree on a family recipe that featured bright, yellow saffron rice, hot spices, and special dipping sauce. He encouraged his students not only to know what was traditional in their families but also to try out other approaches that might be unfamiliar. Nodding toward one of the groups, Jack said to me, “These boys . . . no spices. I’m trying to get them to notice that this is about culture; their own family background.” He was pleased when one of them, Mike, came up and asked about adding thyme. When Jack asked him why he wanted to use it, Mike said that he’d never heard of it before.

Two other priorities not written in Jack’s objectives were presentation and creativity. When we watched the video, we noticed the careful way students arranged the presentation of their completed dishes. Jack commented that he models and discusses appealing presentation in his demonstrations, so his students know that it is important. Creativity was stressed verbally before the rice lab. After the lab, Jack commented, “I told them I wanted them to make up a recipe. I don’t know if I should have made an objective about creativity.” Jack’s uncertainty was evident when he asked me questions about whether a specific aspect of learning could be considered an objective. Furthermore, he seemed unsure about the appropriate number of objectives. Jack reported preparing for a lesson and asking his wife (also a teacher), “Is it okay to have just one objective?” When she asked why, he said, “It doesn’t seem right.” He recalled that she responded, “Why not? Keep it simple.” After the lesson, he confirmed for himself that one objective was much more valuable than too many. It appears that, in Jack’s mind, objectives are legitimate if they come from the book or if established teachers offer an endorsement. The other priorities that have more personal value to Jack seem to be relegated to secondary status.

Although Jack has developed a practice of writing out objectives, there are some priorities that are not included, and he questions whether he is right about the ones he has selected. “I’m never satisfied,” he said. “I doubt myself too much. . . . I never think I’m doing it right.” I asked, “Who is the authority to decide what is satisfactory?” Jack replied quickly, “I don’t know.”

Then he spoke about the influence of his father, who is still a large presence in Jack’s life. He explained that when he scored two goals in a high school game, his father was likely to say, “Why didn’t you get three?” Jack claimed that his father’s response pushed him to try harder. He often spoke appreciatively of his father; at one point, he offered a telling descriptor—“He’s never satisfied, always going for the best.” The challenge keeps him going and he also thrives on encouragement and approval from others. “I make a good meal; I like someone to say, ‘That was great. That was good.’” He contrasts himself with his wife, who, he explains, is her own judge of what is satisfactory. As for himself, Jack said, “I need someone to tell me it was a good job.”

Interpretive Reflection

Jack’s choice of *objectives* as the most significant, enduring learning from Studying Skillful Teaching seems to be driven by what he needed in the moment to help him make instructional decisions. After surviving that first year, Jack was not satisfied with his teaching. Objectives gave him a tool he hoped would make him slow down and feel more “in control.” Not only was he concerned about reaching all students but he was also trying to narrow the scope of what he could undertake. Communicating and sticking with objectives gave him a way to self-correct for his tendency to jump in and show students *his* knowledge; using objectives helped him begin to define what to watch for in

emerging *student* knowledge. In my mind I have an image of Jack flailing around in the waters of teaching all that first year, arriving dripping wet in the course in late June, and climbing into a row boat with oars labeled “objectives”!

Jack’s status as a beginning teacher and his lack of preparation for teaching are obvious influences in his selection of objectives as important professional learning. As Huberman notes in his research on the lives of teachers, the first year “is a period of survival and discovery” (Huberman, 1993, p. 5). Jack’s experience was typical of many teachers’ first year. His lack of preparation left him to rely on whatever he imagined teaching was about and fashion his own approach. His vision of teaching was strongly impacted by an “apprenticeship-of-observation” (Lortie, 1975) that lasted into Jack’s first year of teaching. Jack’s image of the teacher role had been shaped by the faculty of Branfield High School when he was a student there. Of all his teachers, Tom Derida, the athletic director and science teacher, was most influential. When Jack in turn joined the Branfield High faculty, Derida volunteered to be his mentor. Because Jack preferred to learn by observing a demonstration and then “tweaking it” to make it his own, he watched Derida teach and tried to improvise. The lecture model used by Jack’s mentor was ill suited to Jack’s assignment to teach cooking and did not correspond well to his spontaneous, relational style with students, but Jack had little basis for comparison and limited knowledge of other options. Jack enrolled in the course looking for solutions to help him cope with the demands of a job that was more complex than he had imagined.

As a context for Jack’s work, Branfield High was friendly and somewhat supportive. Jack often referred to his mentor teacher with enthusiasm and he felt free to ask any faculty members questions about “how to handle things.” The principal stayed in

touch with Jack during that first year; he suggested that Jack take the course and arranged for the district to pay the tuition, because more substantive, ongoing professional support for new and experienced teachers was not built in to Branfield's school culture. The mentoring arrangement was voluntary and informal. There was no structured time for teachers to collaborate on curriculum or guidelines for instructional planning or for collectively assessing student outcomes. Branfield High was the kind of school environment characterized in the literature as "congenial" but not deeply "collegial" (DuFour & Eaker, 1998; Little & McLaughlin, 1993; McLaughlin, 1998).

Jack's experience in the course was very different from his experience as a new faculty member. The collegial conversations and joint work in *Studying Skillful Teaching* gave him an opportunity to reflect with others and, as he said, "make sense of teaching."

Jack had accepted his teaching context at Branfield with good cheer and did whatever he could to develop his instructional skill. His efforts to incorporate objectives into his planning and instruction represented a quantum leap in performance over the first year. No longer was he moving through a chapter driven by a "coverage" mentality. Instead, he learned to stop and think about what was most important for his students and break it down into manageable chunks. Nonetheless, during the research study it was evident that his skill in developing and using objectives was just beginning to develop.

During class and in our conversations, Jack defined objectives in rudimentary terms—"directions, small pieces, guidelines, blueprint." Rather than describe student learning outcomes, his objectives usually listed activities for students to do, although occasionally he made it clear what he wanted students to *learn* by that doing.

Professional learning in the course provided Jack with a needed instructional tool; his capacity to use it was at a novice level.

Viewing Jack's current use of objectives through the lens of his developing personal authority in making instructional decisions offers some perspective on the gains and the limits in his professional learning. Jack used the home economics text to derive objectives for each class because he believed the text delineated what he was accountable for. He expressed more confidence in knowing what he was "supposed to teach" compared to the first year. From Jack's perspective, the authority on what to teach and the judgment on how best to do it resided largely outside of him. He viewed the text, the principal, his mentor, his wife, and me as forces with more authority than he had about his own teaching. Jack's statement, "I need someone to tell me I did a good job" and his stance vis-à-vis school authority gives evidence of Kegan's third order of mind, the *interpersonal* (1982, 1994). He seemed embedded in a professional context that defined his role. Similarly, Loevinger's milestone of *conscientious conformist* (1976) describes Jack's development, because he is at once self-aware *and* concerned about fitting in.

Although Jack gave considerable weight to external authority, his sense of personal authority with students was strengthened by using objectives. He began to use the development of objectives as a mediator between the authority of the textbook and his own perspective on what his students needed. Objectives, therefore, functioned to support Jack's sense of his role as a teacher who should carry out what others expect him to do; they also gave him ground to be more in charge with his students.

The use of objectives fits easily into Jack's current frame of reference and did not push the edges; he became more capable of fulfilling his duties as a teacher and better

equipped to communicate what he wanted his students to do. I was intrigued, however, by some strong priorities that he did not seem to consider legitimate objectives for learning—culture, creativity, and presentation. In our discussions, he was emphatic about the significance of his own cultural background. In my visits to class I noticed that Jack often encouraged students to speak about their own cultures, asked them to be inquisitive about other people's cultures, and led them to consider the way food reflects cultural realities and traditions. Creativity also came up as a priority in our discussions and in the cooking lab. Jack urged students to try variations using different techniques or ingredients. Finally, he stressed imaginative presentation of food both by modeling and by insisting that his students take their time in the final steps of food preparation. Yet when he wrote his own notes about objectives and explained to me what a lesson was about, these three priorities were not expressed as objectives.

When I asked Jack specifically about the absence of culture and creativity in his planned objectives, he confirmed that this was true. He explained that because creativity and consideration of cultures are not in the text he did not think they could be considered official objectives for learning. To embrace his own priorities of creativity and culture as objectives, it is likely that he would have to rely on his own personal authority to decide what is important for students to learn. He would have to expand his frame of reference about what it means to be a teacher so that he could make decisions based on his own experience and beliefs rather than simply adhering to the prescribed text. I wondered what he might have taken away from professional learning if he had been more secure about his ground for decision making.

A small moment of conversation in July at a wrap-up meeting about our work together revealed signs of a growing edge. Jack seemed to indicate that he was on the cusp of expanding his sense of personal authority as a teacher. As we reviewed the draft of the profile I had written about Jack, he drew my attention to his decision to select just rice to introduce the unit on grains, rather than to follow the presentation in the book. “You know another reason why I decided to pick rice out of all the possible grains?” he asked me. “Because it is culturally universal and I think that is important.”

**Joan Herlihy:
Putting a Focus Up Front,
Checking for Understanding Along the Way**

Joan Herlihy's quiet, self-effacing demeanor gave little indication of her strong feelings about teaching art when I first met her during the opening session of Studying Skillful Teaching, a course I taught in her district in 2001,. She is a veteran elementary art teacher in the same small town where she grew up. Joan decided to sign up for the course because of the credits associated with it and because it was about the craft of teaching rather than being focused on a particular subject area. When we talked later about her reason for choosing to take the course she commented drily, "There aren't a lot of courses that are offered that really fit into what I do."

As the course evolved Joan spoke up, offering pithy observations. Her written reflections revealed her to be deeply engaged in thinking through her teaching and considering how she was trying to reach learners. Joan appreciated the collegial conversations in the course sessions, and she noted that the professional dialogue compensated for the absence of opportunity in schools to talk about "philosophies of learning or anything practical." She was eager to learn a range of strategies to reach different learners and the chance to do so appealed to her. She realized, "Hey, just because I'm the art teacher doesn't mean I can't use those things, too." Her comments revealed how the course pierced her sense of isolation: "[It] gave me more of a feeling that I'm not all that different than everyone else." When the course was over, she

continued in her world of teaching and I was left to wonder, as I so often did, about what happened to the learning from the course, to the teacher, and to the students.

Out of the blue, I got an e-mail message from Joan about a year after the course ended. She wondered whether I remembered her and wanted me to know what an impact the course had on her. Her message was characteristically vivid:

I have to tell you that although one would think that there wouldn't be much practical application of that course for me, it was a real epiphany in my life. I realized that since nobody gave a rat's ass what I did anyway, I could begin to do what I really think is right for the kids, and go at a pace [at] which they might actually make some connections between what they are doing and who they are. So thank you for that. Nobody has questioned any of the changes I've made in the program (frankly, I'm sure no one knows that there ARE any changes), and they've made a world of difference to my peace of mind.

A year later, when the time came to invite former course participants to consider being part of my research study, Joan was an obvious candidate because I was curious to know more about what had affected her so deeply. Fortunately, she agreed to participate. I learned that the whole story of her learning was bigger than the course itself; two kinds of changes happened to her. As Joan followed the parameters of the research project she selected an aspect of the course that she felt had changed her teaching and the learning of her students; we traced that pedagogical thread through our research together and were able to analyze some shifts in practice. Then, along the way, a larger, less visible change in her stance as a teacher became clear as well. The factors that accounted for her use of new strategies and the forces behind that personal change were revealed as the research unfolded; we started with Joan's love of art and her childhood experiences of family and school.

A Love of Art

Joan has weathered many years of teaching, often isolated from other faculty members. She has kept one thing in the forefront: her love of art. Referring to a recent trip to the Boston Museum of Fine Arts, she said, "I go there pretty frequently since I love everything about art—looking at it, making it, thinking about it, learning about new stuff." She describes her own response to art as a "gut feeling . . . I don't look for any 'word-type' meaning, you know. My reactions are visual first . . . like, 'Wow, that's really strong. I love the way those lines go from one side of the paper to the other.'"

Joan's own art making is centered on images and her felt sense of what is important: "I'm more about my emotional response to art than trying to get a message across." Currently, she doesn't have either time or equipment to pursue what most interests her (printmaking) but she finds some satisfaction in making art with her students.

"I want to teach kids about art because I enjoy it so much and I hope that some of them can maybe take that with them." Referring to the students in her classes, she explains, "I see them so infrequently. . . . I want them to have a positive experience . . . to have something they are satisfied with." From Joan's perspective, a student's enjoyment springs from a sense of satisfaction with what is produced. In a fourth grade class I observed, Joan's emphasis was evident in a conversation she had with Jason, who brought his work to her for comment. He shifted from one foot to the other as she sat and looked at his drawing in progress. Joan glanced at him and said, "What this tells me is 'I love drawing this . . . I love drawing that . . . but I don't love drawing the tree!'" Jason grinned and mumbled something that indicated his lack of satisfaction with his skill. "Don't worry," said Joan, "there's always something that we're not so good at." Joan continued with some suggestions about using contrasting colors to make the tree stand

out. Coaching a student like Jason, for whom art making isn't a natural strength, is a challenge that Joan enjoys in teaching art. Another source of satisfaction is the way students surprise her. She explained with delight in her eye that a student "will take whatever I have set up in a whole new direction." The surprises and challenges that her students bring to art classes keep Joan going: "If I ever get to the point of not enjoying the children, I'll know it is time to leave teaching."

Becoming an Art Teacher

Joan's love of art began early in a rural community in New York state, where her father sold feed to the surrounding farms. She cannot remember much emphasis on art in her elementary school because the art teacher only came by "once in a blue moon." A lot of art was done at home because "my parents are both interested in art although they never made careers of it. They went to the Rhode Island School of Design." In Joan's middle school years, the family moved to a semirural town in eastern Massachusetts where her mother's family had a house available, not far from an auto dealership where her father became a car salesman. The eldest of seven children in what she describes as "a big Irish family," Joan claims that she "fell into the natural teacher role," tending toward jobs that involved children. There was never much discussion about careers and plans for postsecondary education, but her parents were supportive of her desire to attend the Massachusetts College of Art, which was then an affordable option.

When she went to college, however, her interest was in art, not teaching. In fact, she laughed as she remembered, "I always swore I was never going to be a teacher." Reflecting back on the work choices for young women 35 years ago, Joan notes that she

and her sisters were typical. “We filled the women’s jobs nicely for the time. I became a teacher, one sister became a nurse, and one became a secretary.”

Joan describes herself as getting into teaching “through the back door” because she needed to work while her husband finished college. Joan had just graduated from college with a degree in fine arts but she had neither teaching preparation nor certification. Nonetheless, she interviewed for a job in her hometown to teach art at three elementary schools in the morning and at the high school in the afternoon. The superintendent couldn’t find anyone else willing to do it, and Joan recalls that he said, “If you’ll take this job, I’ll give it to you and you can get certified afterwards.” So she taught during the day and went to classes at night to acquire her certification.

Joan recalled the challenge of that first year of teaching:

It was hard because it was the first time I had ever worked full-time, it was the first time I was ever married and running a house by myself, and also I had no training to fall back on so I was just learning everything by myself. I didn’t have a mentor or anything; I was just doing it kind of on my own.

As hard as the beginning was, she asserts, “I never regret it now. I really like it.” Joan took time off from teaching to raise a family and then returned to be the elementary art teacher in the same town where she still teaches. “I’ve had a kind of charmed life, you know, things have fallen into place about getting the job and coming back to the same job.”

One Thousand One Hundred and Fifty Art Students

Joan’s sanguine statement about her “charmed life” and good fortune in having a job says something about her flexibility, but it masks a troubling reality in her current teaching assignment. At this point Joan is the only elementary art teacher in a town south of Boston with three elementary schools. She sees each K–4 class for 40 minutes every 14

days. Joan has a total of 1,150 students. In two of the three schools, she has an “art cart” that she uses as she travels to the students’ classrooms for their bimonthly art lesson. In the third school, there is an art room where the students come to her for class. Her schedule in the schools is organized so that she “covers” the students while classroom teachers take a break. When the town eliminated the art program in the 1980s due to budget reductions, Joan was laid off. She returned when elementary art was reinstated but the program had changed from once-a-week classes to classes every other week. “When people ask me about my job, I always say, ‘Oh, well it’s really great except for the fact that I don’t see the kids anywhere near enough.’”

Joan describes the lack of time as a “huge, big weight.” When she begins a project with her students, she runs up against a tough constraint: “So far, I haven’t figured out a way—seeing them every 14 days—to finish a project in a period . . . or cover a given amount of material with the kids over the course of a year.” The two-week interval between classes can sometimes cause a loss of momentum and interest so she has to help the students reinvest in their work in progress each time she sees them. Joan commented about an incoming class of fourth graders whose investment in the work might have dropped off:

It’s going to be really hard to yank that [interest] back . . . with me not seeing them for two weeks and they are nine years old. . . . So we’ll pass the papers back and they’ll have to think about it, look it over. . . . It will take five to seven minutes.

Joan’s role as an art teacher has often been one of coping with circumstances even as she wishes they were different. Her own desires for the kind of art education she thinks children *should* receive are revealed in her regrets about what is not possible in the current structure. “We don’t do much in terms of nuances . . . there is no time to have a

conversation, to dwell on it . . . and not enough contact with what we do in art class to bring with them [to other learning].” She recalls art classes she used to give in her home and wishes that she had enough time in school to let “one thing proceed naturally into another,” to allow students to talk over the aspects of art they are discovering, and to attend to individuals. “I have an almost impossible situation for addressing the individual needs of students,” she said as she commented on a student whose obvious lack of success and engagement in art concerned her. “Mainly what I offer individuals is kindness and support and my enthusiasm for a part of life that I really love.”

Joan wishes there were time in school for students to learn art through discovery and for her to do more informal observation and coaching. At the same time, she believes it is important to provide modeling and guidance. Wishing for more time for student discovery and self-direction, Joan imagines what it would be like to “see them day after day and involve them in a critique of others’ works and asking questions.” Joan continued, “If they are the ones to discover the answers to the questions, I think it becomes more meaningful. . . . Ideally, I’d like more of the answers to come from them.” She also pictures herself being “able to watch more of their work, ask them questions about it and have them tell me why they did what they did. And maybe the learning could go from there.” In her ideal role, she would create opportunities for open-ended discovery, yet she would want to provide guidance as well. Joan acknowledged that students have lots of good ideas, but said, “They don’t have the tools to express them. It’s hard for them to move forward with the confidence they could have.” Joan referred to students in an “apprentice” role, saying, “I think there’s a lot to be learned through following the instruction of somebody who really knows how to do it. . . . Once students have those techniques under their belts, they can go off in their own direction.” Joan’s

depiction of herself as a learner evokes positive aspects of being in the apprentice position. “I am influenced by my own learning style, because I love to have someone show me something. Partly because it is quicker, but I also feel like someone has given me a gift and I like that.” As an experienced teacher Joan has those gifts to offer, but the sheer number of students and constraints on her time pose a formidable challenge.

Influence of the Course: Putting a Focus Up Front, Checking for Understanding

Two years after she participated in Studying Skillful Teaching, I met Joan in her art classroom. It was late August, just before the beginning of a new school year. Joan recalled the power of collegial interaction during the course and she remembered some teaching strategies that were particularly useful. For the purpose of our research together, Joan selected two pedagogical approaches from the course that, used in tandem, have had an enduring impact on her thinking and on the way she teaches an art lesson: putting a focus up front and checking for understanding along the way. These two instructional strategies are taught in the course as “communicating objectives” and “checking for understanding.” Joan explained the influence of the course by making a comparison with the way she taught *before* taking the course:

In my past there have been times when I just jumped into a project without reference to what I hoped my students would learn and assumed that they would just “get it” from the experience. I do more at the beginning of a class now that is really concrete and then I check for understanding. I hope that the students’ learning is more focused and they have a clearer idea of what they are trying to accomplish right from the start. I think it is a better experience for the kids.

Joan chose a class of fourth graders for me to visit, with the shared goal that I would collect evidence of the way she set up the focus for a lesson; I would also check in with students during the class. Joan thinks of “checking” as more than simply confirming

that students are following directions; it is also her attempt to tune in to what students understand about applying an art concept or technique to their own work. Through the fall, we speculated about the influence of her new practice on students.

Putting a Focus Up Front

Joan described the heightened clarity of her focus at the beginning of an art lesson as a “shift” in practice that not only sets up the lesson more explicitly but also gives her a more specific way to check in with students while they are working. “My biggest shift is in how concrete I make it at the beginning. . . . Since I’ve done that, I get much more of a feeling that they *do* understand when I do the checking.” Joan went on to explain her shift in presenting a lesson focus as one that was built onto her established practice. “I have always been in the habit of demonstrating, but now I make an effort to verbalize my thought processes as I demonstrate.” Joan not only articulates the concepts and procedures in the moment of need but also helps students remember the elements of the demonstration with a visual list:

After modeling out loud, it became obvious that students needed a reminder of the sequence of steps I took to produce the artwork—some steps were procedural, some a reminder of strategies for accomplishing the artistic goal. I know that sometimes the students don’t pay attention to what they hear and see. . . . I think they need a visual reminder to sort it all out in their heads. This was easy enough to accomplish by posting a list of steps to take on the board.

As she circulates around the room, checking in with students at work, Joan tunes into their intentions and their understanding with particular reference to the focus established at the beginning of class.

Signs of Joan’s professed shift in practice were evident as I visited art classes and we continued to talk about teaching and learning. Two major reasons for the change

became apparent as we debriefed after classes: her wish to use class time well and to involve more learners. A third reason for putting a focus up front has to do with the second pedagogical approach that Joan believes has changed her practice: when the focus is clear, it can establish a basis for checking students' understanding while their work is in progress.

The challenge of coping with the lack of time topped the list of reasons for making a pedagogical change. "Time is of the essence here and we have no time to fool around," stated Joan emphatically. She lamented the lack of opportunity for students to discover more independently: "If I had a class I saw every day . . . they would do a lot more independent work." However, she added, "it would be a long, arduous process and we just don't have time for it." Despite the lack of time and institutional indifference, Joan has some clear priorities about art instruction. "Everyone around here thinks of art as just kids making pictures but I really try to focus on a body of material. Even though I make it really, really basic, there are concepts that I want them to know." Joan commented on a class studying visual composition where the design concept of "emphasis" was the focus:

The 2 or 3 minutes of my precious 40 minutes spent at the beginning of the project talking about what "emphasis" is in a composition and how it could be shown turned out to be the most valuable minutes of the lesson. The students didn't have to agonize so much at the beginning over how to get started, and they seemed more creative because some fundamental design questions had been addressed.

The first time I visited Joan's art classroom in September, I was able to see how Joan coped with the time constraint by establishing a clear focus up front. A class of 24 fourth graders trooped into the room and took seats at tables while Joan passed out large sheets of drawing paper, small pieces of writing paper, and boxes of crayons. On the front

board, she had posted a chart with the word *perspective* at the top. Next to it was a large blank sheet of drawing paper. “We are going to do an art project today that talks about perspective,” said Joan and then asked who could recall from last year what they did to make things look up close or far away. Students remembered working on landscapes in third grade and Joan asked, “How did we draw the mountains so that they seemed far away?” Many students called out, “Small.” Joan affirmed their answer and explained that size helps show perspective. She wrote *size* on her large chart and asked the students to write *size* on their small pieces of paper. She continued by introducing two other techniques to show perspective (overlapping and color value) and gave directions for the project: “We’ve got three different ways we can show perspective. . . . I’m taking this chart down but keep your note paper so that when you draw your picture, you can make sure you have these three things in it.” Before setting them to work, however, Joan demonstrated a simple drawing on the board, calling attention to each technique as she used it.

As Joan modeled, she guided students to begin their projects by sketching some basic shapes on their papers. Every student used a crayon on a large piece of manila paper to make the rudimentary shapes that Joan suggested. Joan began to guide them by saying, “This is just a sketch so we know where things are going to be. We’re going to put a tree closest to us, a house behind that, and way back, some mountains.” It might not be a house, she added, and suggested maybe a castle or a motorcycle garage as she urged each of them to make it original by adding details and color. The opening segment took about 10 minutes, which left a half hour for students to work on their drawings. Boys and girls began to talk quietly about their ideas and make decisions about colors to use. One boy picked up a crayon, held it high, and said, grinning in Joan’s direction, “Is this the

purple mountain majesty?” Joan responded with an affectionate chuckle and began to circulate. Joan’s deliberate verbal and visual introduction oriented students to perspective as the focus of the lesson and to her expectations about their work; this presentation resulted in an efficient use of class time and a high level of engagement on the part of her fourth graders.

Later, after the students had left the art room, Joan explained a second reason for putting a focus up front—she can pull more learners deeper into the art-making process. “The kids who are pretty creative are going to fly at times anyway . . . but many of the other kids, well, without that structure, they would accomplish little.” Joan recognized that although she provides lots of visuals (her own learning style is “extremely visual”) not all learners can infer the necessary understanding and skill from the visual example without explicit language to guide them. In the past, for example, she would begin by drawing a picture using techniques to create perspective and then set her students to work on their own drawings. Circulating around the room, Joan noticed that

Some kids would get it right away . . . but some of the kids would say, “What do you mean”? And I would say, “Well, if you want the house to look behind the tree, you could do it this way.” And they would say, “Why?” . . . As obvious as it is to me, it really isn’t obvious to them.

Not only does Joan’s clarity of language help more students understand what to do and how to do it but the specific words deepen their understanding. “When they just look at the picture, they can see the things they want to copy. They don’t necessarily know what those things are. (The words) give them more of an understanding.” Joan believes that demonstration and an explicit lesson emphasis on the language of art has brought more learners into art making and has enriched the art experience for everyone. “They’ve always loved doing the projects; but now, in very simple terms, they know the

artistic concept or technique being covered, as well as the fact that they are using their art to communicate ideas, feelings, and knowledge.” Joan’s visual and verbal focus at the beginning of class seems to be building a deeper understanding of art and art making that involves many students.

The students whom Joan especially wants to encourage in making art are those “for whom art is kind of a chore.” She calls them “the balky kids” and she imagines what might help them most. Putting a focus up front and checking in, Joan says,

may not make a huge difference with the kids who really love art . . . but it has made a big difference with the attitude of kids in general. And the balky kids . . . still may not love it and they may giggle and fool around a little because they are uncomfortable, but at least they have a little bit clearer idea of where they are supposed to be headed.

When students acted up or resisted, Joan thought they just disliked doing art. However, she said, “with a little digging into it, I found that it was really that they didn’t have a clue what was going on but they didn’t want to admit it. It was easier just to be kind of stinky about it, you know.” Indeed, when Joan undertook a case study as part of the course, she learned a lot from a third grader named Dennis. She discovered that the problem wasn’t necessarily an emotional dislike of art but instead “he needed a specific path to follow. . . . He still doesn’t love it, but his results are better.” Upon completing a landscape, Joan recalls, Dennis looked at his work with some satisfaction and asked, “Can I take this home?” rather than making his usual comment: “I stink at art.” Joan reflected on what she learned from Dennis: “A big part of his distress over art was that he just couldn’t remember what to do next, and had no interest in trying to come up with a lot of creative ideas on his own.”

Joan believes that her practice of establishing a clearer, more concrete focus at the beginning of class has helped her and her students make better use of class time. She

feels that using more specific focus to engage more learners in making art, especially those who are not naturally inclined toward art, is indeed working because more students like Dennis are less negative and more productive during art class. Her third reason for putting a focus up front is to support the use of the second pedagogical approach that she claims has made an important difference in her practice—checking for understanding along the way.

Checking for Understanding Along the Way

“I could assess what they knew by what they produced but you know, since that course, I’ve really taken some time to . . . find out if they have something to tell me about what they’d learned.” In the fourth grade class where students were studying perspective, Joan let the students know about her intentions after she finished setting up the focus: “I’m going to come around, look at what you have and talk to you about what you have and what you might do.” As she circulated, Joan tended to probe for student understanding of the techniques that convey perspective. Many conversations began with a question from Joan that elicited a student’s explanation of what he or she was trying to achieve. A group of girls were working on their drawings at a table when Joan stopped by. Referring to the three techniques for perspective that she had introduced, Joan pointed to one aspect of a drawing and asked, “Which one of those things would this be . . . if it goes down and you can’t see part of it?” A girl answered, “Overlapping,” and Joan responded, “You got it!” A conversation with one sandy-haired boy about how color can show perspective began with Joan inviting his thoughts: “Give me an idea of what you could do.” When the student offered some ideas, she responded, “What I would do is test out some of those ideas and then decide.” Sometimes when Joan checked in, she found that a student

grasped a concept and could be moved along to reach for something new. Nolan's drawing, for example, showed his advanced use of color blending. "Since you understand this stuff pretty well," commented Joan, "you might want to work on a little texture," and she continued in dialogue with him about possibilities.

Checking in with Tina, a thin fourth grader with a quiet manner, Joan noticed that her drawing showed a small patch of blue floating above the tops of the branches. Tina did not know how to manage color to show the relationship of the sky to the trees. "All right, we've got a situation here," said Joan, looking into Tina's expectant face. Joan asked her to imagine: "You are walking outside and you are looking at the sky. The trees are there and what happens to the sky? Does it hang out like a little blue blanket? How close does it come?" Tina seemed unsure how to answer so Joan advised her to go over to the window and look outside. She came back to talk with Joan about what she observed but because she still didn't seem to grasp how to represent what she saw, Joan indicated how the color blue needed to come all the way down behind the tree branches. Tina went back to work.

Joan commented on her own internal process as she circulated and checked in with students: "I walk around and see if I think they've got it and if they don't, then I dig into my own mind and say, 'What can I say to this kid in order to bring him around?'" She approached a small boy bent over his picture, working intently. He was beginning to draw a narrow path from a house to the bottom edge of the paper. She pointed out the position of the house and the perspective of the path leading away from it and asked whether, when the path reaches the edge of the paper, "will it still be skinny?" He responded softly and began to rework the path to widen it. The 40-minute period was

almost over and Tina came back to show Joan her drawing. Joan took it in her hands with a grin and said, "My dear, I think you're in business!"

Putting a focus up front and checking in on that focus gives Joan a starting point but she doesn't set it up so tightly that she loses sight of her main priority, a sense of satisfaction with the artwork. She believes in "going with the flow" in the interest of "making good artwork in the end." Joan reflected that on the one hand she has become more explicit about the direction for a given class, yet on the other hand she has become more flexible in her work with students:

If it looks to me that something's a little unclear there I just automatically go to that because I figure it's right there, right in front of us. If this is a little area that we can clear up, then that's the place to go.

Discussing her interventions with students in a class that had just finished, Joan commented, "Mostly what I decided to emphasize still focused on the main point but also, as they showed me their pictures individually, we just worked on what will make the whole thing work overall." Even though the time is short and the focus is clear, Joan's pacing with students is responsive to who they are and allows some sense of discovery. "As I've gotten older, I've just gotten a lot more flexible. . . . I have found from my experience that they need 10 or 15 minutes to mull it over." Sometimes a few students might want to start over with a new piece of paper. "Even though I'm tempted to say we don't have time to start over. . . . I let them have it. I bet two years ago maybe I wouldn't have been so easy." Being able to "go with it" is important to Joan even as she is more conscious of putting a focus up front and checking for understanding. From her point of view, her shift in practice doesn't hamper her flexibility. Instead, she is able to make the most out of a short art lesson, show how to achieve certain effects, set a direction that she

can reinforce as it seems appropriate, build more explicit language about art, and engage more students in the process of art making.

Looking at Student Work, Listening to Students

If we look at student results, are there signs that Joan's intentional changes in thinking and practice might have actually made a difference? Although we knew that it would be hard to discern on the basis of one project, Joan agreed to take a look at student artwork to see what might be revealed. She also wanted to involve the students. Even though the fourth graders' "perspective projects" were finished in late October and it was now December, Joan decided to display all the projects in the art room and to invite the fourth graders in for a short discussion.

Almost all of the students had been able to use size and overlapping to show perspective, and more than half of the class used variations in color value to indicate distance. As they looked at their own pictures, a few boys and one or two girls were able to speak about and point out examples of the three techniques used to create perspective. It was hard to tell whether all of them could have identified the techniques by name. However, none was able to recall the abstract word *perspective*. I was surprised, but Joan commented later, "They don't really have an understanding of perspective yet. They know the things those techniques do; they don't know that as a body, it's called perspective." I asked the students to talk about the way they went about these projects and what their teacher did to guide them. After some initial hesitation, several students made general statements such as "She gave us an example," "The examples helped give us an idea," and "She helped us draw the basic things." Joan felt that their responses were typical and that their lack of elaboration might be due to several reasons. First, the

projects were “old” and they might not have had any emotional connection to them anymore. Second, it is uncommon for them to be asked by adults in their world to be reflective about their work. She has noticed that they tend to be more invested in having “right” answers than in being speculative about their process. Furthermore, Joan pointed out, “I don’t even know whether they are open to listening to exactly what you’re saying . . . especially with a stranger, they . . . get on whatever their armor is, whether it be shyness or . . . bravado.”

After the student discussion was over, Joan and I sat in front of the display and talked about what we saw. She was not convinced that the final pictures were any different or better than in past years. Next we contrasted the drawings of two students—one who falls in the “balky kid” category and the other who has advanced skills and loves art. We came to a realization of how putting a focus up front and checking in along the way may relate to the presence or lack of creativity. Joan pointed to a drawing by David, who is a bit balky, which was full of interesting detail and included a red dragon.

“Without a focus,” said Joan,

he would have come up with probably nothing. . . . If I said, “You have to have something in the front and something in the back,” he would have used two or three pieces of paper and probably wouldn’t have anything. He doesn’t have the greatest technique but he can seem to fit a lot of creativity within boundaries.

The thing about David, Joan said, is that “he needs a really concrete jumping-off place.” In contrast, Nolan has, in Joan’s estimate, “tons of ability and a very . . . good understanding of everything.” Yet, she continued, “He is not the most creative kid in the world. . . . He does lots better if you let him go with his own ideas.” Without the structure of the class, “he would just focus on the things he thinks are important and it would have been better.” So, I mused, it appears that although the structure and focus up front

supported the best work of one student, it may have constrained the best work of another.

“Yeah,” agreed Joan, “I think it is just one part of a big puzzle.”

The Bigger Puzzle

Joan’s own learning and refinement of practice were also part of a bigger puzzle. The timing of *Studying Skillful Teaching* and the changes it fostered coincided with other factors at work in Joan’s life. Joan referred to herself as growing older and becoming “more relaxed with going with the flow.” She said, “The course just happened to come at a time in my life when a lot of that [greater flexibility] was happening anyhow.”

However, she also described her mind at the time as a “swirling mess.” The personal reflection opportunity in the course was important to her “because up until that point, I . . . had been totally overwhelmed by the fact that I had the kids for so little time and . . . Ed Reform came in and the [DOE] frameworks came down and all that stuff.” Joan felt swamped by her perceptions of what might be expected and simultaneously felt ignored by anyone in authority in the school system. When asked if she voiced her concerns over the years, she professed an aversion to “making trouble. . . . I don’t say much—what’s the point of complaining?” It seemed to her (and still does) that “my superiors don’t have one clue whether or not I really know my stuff,” and perhaps, she thought, they didn’t really care what she did anyway. Joan called the course “a helping factor” that gave her the “impetus to stop and think . . . it made me put my thoughts together more than I might have otherwise.”

As Joan sorted through the thoughts swirling about in her head, she came to a decision that shifted her stance with those whom she perceived to be in authority.

I finally just decided I would just go with what I thought was important and let go of the rest of it. Nobody's ever going to know the difference anyhow so, you know, that took this huge weight off my shoulders.

Joan recalled that the collegial conversations in the course were of particular help in coming to this realization. An art teacher from another town who was in the course challenged Joan's concerns about what the school district might expect when, in fact, the time allotted for art wasn't adequate to meet any lofty goals. Joan also referred to her own perception of standards for art education: "I had this idea of what I ought to be doing . . . like the kind of curriculum you read about in art education magazines." Furthermore, she thought that she had to "bend them [her students] a lot more to get them to produce more." She realized, however, that "if I can't see them more often then I would never be able to achieve much more than I am."

Joan explained her shift as one that she consciously chose:

I kind of let up on myself. . . . [The course] made me stop and size up what I really thought was important. If somewhere down the road it comes to pass that that's not what somebody else thinks is important, I'll deal with that then. But for right now, I'm not going to worry about it.

Waxing philosophical, Joan affirmed a strong sense of her own experience and authority: "The truth of the matter is: it all really boils down to your own reactions to the situation and your own perception." Indeed, Joan's perception of herself in the role of art teacher appears to have shifted developmentally to a more autonomous sense of what is truly important. She seems to have moved from a state of resignation about the power of external authorities to a more personally constructed sense of her purpose in teaching art.

Joan's new perception gave rise to shifts in her thinking and practice, which, she claims, were greater internally than they were visible externally. There is no question that

she worked on putting a focus up front and checking for understanding for reasons that were important to her. At a deeper level, Joan said, she became

way more relaxed with dealing with what the kids present to me. . . . I have this overall idea of what I think is important for them to learn but I'm much more flexible about how I'm going to get around to that. . . . I don't exactly know how to put this, but I kind of wait to see how things are going to be with them and then I go forward from there, you know.

It seemed to me that she had re-envisioned her role as one of taking the lead more clearly at the outset and then following the students' lead after the work was underway. Joan speculated that an outsider might not notice very much difference in her program but she described herself as "more comfortable" because (as she had stated a year earlier in the e-mail to me) "I could begin to do what I really think is important for kids." I wondered aloud to Joan whether she might characterize her shift as one that moved more toward tuning into students and attending to learning and away from being pressed by coverage. Joan strongly endorsed this formulation and added that by the time the course occurred, "That's where I was at . . . but I hadn't come around to saying it to myself. The course sort of brought me around to that."

Interpretive Reflection

"I think life is kind of like striving through the mud to get to clarity," Joan said, laughing at the vision of herself slogging in mud. That image is a strong clue to understanding her growth through professional learning. Her thinking about instruction had been muddled by daunting circumstances, prolonged isolation, and a personal style of "jump into a project." Participating in a course gave Joan the chance to set aside the pressing demands, connect with colleagues, and reconsider her approaches to teaching. New clarity emerged

for Joan as the elements in the course combined with her unique history and characteristics as a learner and teacher.

Coping with external demands is a central theme in Joan's life history; from her childhood on, she has seen herself as having to deal with circumstances as best she can. Given this theme, the course was timely in two somewhat opposite ways. In one way, the ideas and strategies from the course helped Joan cope with the overwhelming number of students and the shortage of time. By putting a focus up front and checking for understanding along the way, she felt she was doing a better job engaging more learners during the time they spent in art class. The course content also helped clarify Joan's own thinking and then enabled her to present information more clearly to students. In another way, she moved beyond merely coping with circumstances. Her own development coincided with the course to make room for a deeper shift. Joan became less invested in worrying about expectations that others held and gained a greater sense of her own authority to decide what was important. She also renewed her commitment to her students' experience of art and she seemed to be having more fun in her teaching. It seems to me that the course also gave Joan a framework with which to make sense out of her practice—to reframe it—as well as language with which to talk about it.

My observations in Joan's classroom with students and my conversations with her alone provided much evidence of clear, intentional instruction. There were also signs of her growing sense of authority to do what she judged to be in the best interest of her students. Many of Joan's thoughts and actions appeared to arise from her already considerable experience and strengths as a teacher. And yet the course gave Joan the opportunity to weave new learning into her established practices, strengthening her rationale for pedagogical decisions and increasing the clarity of her daily instruction.

Our collaboration helped us both see that specific aspects of the course intersected with some underlying influences that affected Joan's thinking and practice. The first, most basic, influence is her personal frame of reference as shaped by the socioeconomics and culture of growing up the eldest in an Irish-American family of modest means. She went along with whatever school had to offer; at home she developed a love of art and a habit of attending to children. There, Joan also learned to adopt a practical attitude toward socioeconomic realities. The culture of her family and community defined education as a necessity, particularly in terms of future employment. Joan described her job choice, like that of her sisters, as traditional for the time period. She swore she was "never going to be a teacher" but she "went in the back door" in order to support her new husband while he finished college. Her profile matches the group of teachers identified by Lortie (1975) and Huberman (1993) who chose teaching initially out of economic need. Joan's basic frame of reference is ingrained with the beliefs that art is good and satisfying, children need her care, and teaching is an acceptable way to earn a living.

While economic necessity propelled Joan into teaching, she claims no regrets and affirms her appreciation of the work itself. She followed a fairly typical career trajectory of teaching, stopping to have a family, and then returning to teach when her children were older. Her profile is similar to that of many teachers who stay in teaching because the job meets their family needs, they love to work with children, and/or they are motivated by the subject matter (Danielewicz, 2001; Huberman, 1993; Lortie, 1975). For Joan, it seems that the combination of family convenience, economic gain, affection for children, and a love of art created the staying power that has kept her teaching for so many years, despite difficult contextual conditions.

Joan's development as a teacher started with a proverbial baptism by fire. As a beginning teacher, it is likely that she relied not only on trial and error but also on her own apprenticeship-of-observation, absorbed through years in public school and at the Massachusetts College of Art. Lortie's 1975 description of this underlying influence on teaching, confirmed by other researchers since then (Danielewicz, 2001; Huberman, 1993; Kennedy, 1999), seems particularly significant in Joan's situation because she had no formal preparation to be a teacher nor does she report any guidance or mentoring as she began. Over many years of teaching Joan developed her pedagogy on her own through experimentation, pushed by circumstances and informed by art education journals and occasional courses. By the time she took *Studying Skillful Teaching*, she had been working as a teacher over a 35-year time period, teaching both part-time and full-time. Joan seemed ready for a chance to look back and reconsider her stance, her thoughts, and her instruction.

Engaged in a professional development course, Joan became a learner again. She claims that the course charts, overheads, interactive experiences, and modeling appealed to her visual learning style and her need for demonstration. Clearly, the underlying characteristics of Joan as a learner intersected productively with the instructional dimensions of the course. Additionally, Joan recognized that the course not only matched her learning style and cognitive preference but also exposure to the research on learning styles made her more aware of how she automatically used her stylistic preferences in her own teaching. Her recognition is in line with research and anecdotal evidence; teachers tend to teach the way they learn (Gregorc, 1985; Kolb, 1984; McCarthy, 1982; Silver, Strong, & Perini, 2000). Furthermore, if teachers can become aware of this tendency, they can both utilize it and see its limitations. Joan did both. Her instruction to fourth

graders about the concept of perspective certainly included a visual demonstration. She also intentionally used specific words, both verbally and in print, so that students could relate conceptual vocabulary to the visual image. Finally, although her personal approach may be to discover artistic techniques through experience and induction, Joan chose to be more explicit up front with students to pull in the “balky kids” whose learning might benefit from structured guidance. Joan’s reflection on her own learning in the course, combined with new approaches to try, seems to have increased her capacity to reach a range of learners.

Joan’s focus on student learning is striking evidence of her status as a veteran teacher in a mature stage of career development. Her overriding concerns are the “consequences” of her actions (Loucks-Horsley & Stiegelbauer, 1991) and the “impact on students” (Fuller, 1969). By worrying about the students who balk, reaching out to students who need some concrete approaches, and attending to students who can go beyond the focus of the lesson, Joan revealed her student-centered preoccupation. As Huberman’s (1993) research points out, this mature stage is often characterized by a willingness to embellish established strengths with something new in order to reach different learners. As with anyone in a professional learning course, Joan’s career stage affected her susceptibility to certain ideas and strategies. As a mature teacher, she was no longer primarily concerned about survival issues, her own mastery of content, or her capacity to instruct. Joan was concerned that her students “make some connections between what they are doing and who they are,” and she wanted to adjust her pace and strategies to make those connections possible in the context of art class.

Of all the underlying influences that affected what Joan might take away from a professional development course, the demands of context seem the most obvious. Ample

research has documented the context in which teachers work (Hargreaves, 1994; Jackson, 1968; Johnson, 1990; Sarason, 1996) but too little is said about how each individual's teaching context affects his or her receptivity to professional learning. Joan's teaching situation was tremendously challenging, with three elementary schools, a total load of 1,150 students, and 40-minute classes every two weeks. She did not complain about the number of students but instead was frustrated by the lack of time to involve them in art. These circumstances pushed her to seek teaching strategies to make the most out of the time she had. "Being more concrete in the beginning" helped save time and got students to work sooner, among other benefits. Checking for understanding along the way helped keep them focused and engaged in their art making until class was over. Through the course, Joan gained some new pedagogical strategies to help her deal with present conditions.

The context of schools, however, involves more than a set of demands on teachers. It also includes the presence or absence of support for ongoing professional growth. Research in the last 10 years has documented the positive effect that a strong professional community in a school has on both teacher and student learning (DuFour & Eaker, 1998; Little & McLaughlin, 1993; Newmann & Wehlage, 1995; Schmoker, 1996). Yet, for Joan, professional isolation was the norm over many years. Even though the art room and school I visited had a pleasant enough atmosphere, the lack of professional connection between teachers reminded me of Sarason's bleak description of schools. He raises the question: If schools are not contexts where professional learning occurs for teachers, how can they be good learning contexts for students? (Sarason, 1996, p. 367). The "institutional neglect" that Johnson (1990) depicts in her research about the contexts for teachers' work certainly seems evident in the absence of early mentoring for Joan and

in the long history of administrative disinterest in the art program. Arriving in *Studying Skillful Teaching*, Joan brought both cynicism about the dearth of professional stimulation and a thirst for collegial conversation. She found herself invigorated by the chance to discuss teaching ideas, beliefs, research, and strategies with other teachers. Such collaboration was enhanced by structures for reflection, so crucial to adult learning (Rodgers, 2002; Schön, 1991; Stanley, 1999; Zeichner & Liston, 1987). Joan affirmed the benefits of stepping back from the demands and engaging in dialogue and reflection: “The course gave me the impetus to stop and think . . . it made me put my thoughts together more than I would have otherwise.”

While the external forces of context certainly influenced Joan’s susceptibility to learning strategies and perspectives from the course, a deeper stream moving within her own development was a less visible yet equally important influence. She spoke of herself as growing older and feeling “more relaxed.” The course, Joan commented, “just happened to come along at a time in my life when a lot of that [greater flexibility] was happening anyhow.” In particular, her sense of authority in her role shifted as she cultivated a new attitude toward the increasing pressures of the job. Three different theoretical perspectives on adult development shed light on Joan’s self-described “epiphany.”

The first perspective comes from Kegan’s work in subject-object relations, previously discussed in chapter 3 (1982, 1994). For a long time, Joan simply felt subjected to the school district’s expectations; she adhered to them, even though she was frustrated by the time limits and lack of access to students. At about the time of the course, however, she was ready to stand in a different place in relation to the curricular demands and make new decisions about what to teach and how to go about it. Joan’s

interior movement illustrates Kegan's theory of subject-object shifts in development. She was no longer "subject to" the district's expectations as she reconsidered her relationship to her supervisors, her ideas about art instruction, and her students' needs. Joan regarded her work and its context more objectively, saw it all in a different light, and moved toward what Kegan describes as a *self-authoring* fourth order of mind: she strengthened her inner authority in balance with external sources of authority. Professional learning gave Joan the time and support to surface what was already in progress.

Joan's moment of development also exemplifies two other perspectives on adult development: the qualitative turning points in ego milestones posited by Loevinger (1976) and the changes in epistemological perspective described by Belenky, Clinchy, Goldberger, & Tarule (1986). Building on an increased self-awareness, well underway before the course, Joan shifted from Loevinger's *conformist* position toward a position of conscientiously weighing what was important *to her* with what was expected *by others*. Joan's strong statement reveals a claim to her own sense of authority, as she says, "The course made me stop and size up what *I* really thought was important." However, her "sizing up" did not result in abandoning what others expected, even though she made comments about not worrying about "what someone else thinks is important." Rather, Joan balanced her own beliefs and experience with the district's expectations that she construct a more integrated approach to teaching art. This integration of her own knowledge with outside sources of knowledge shows movement toward a perspective described as *procedural knowing* in *Women's Ways of Knowing* (Belenky, Clinchy, Goldberger, & Tarule, 1986). Joan credits the course with making her stop and think, but in reality, it is likely that her self-assessment and the changes she made occurred due to

the combination of her own developmental readiness, the timing of the course, and the reflective environment that it offered.

Joan's professional learning was pushed by contextual circumstances, galvanized by her own inner development, and facilitated by participation in a course. Her weaving of new ideas and strategies into well-established practices was supported by self-awareness as a learner and her mature capacity to focus on student learning. The course affected Joan's thinking and practice in two ways because she engaged in two kinds of learning, best described by Kegan's distinction between informational and transformational learning (Kegan, 2000). In a nutshell, Joan gained the skill to cope with circumstances and achieve a new level of instructional clarity due to informational learning; she transcended those same circumstances through transformational learning. The information Joan acquired (how to put a focus up front in a lesson and check for understanding along the way) expanded her repertoire and helped her ensure greater success for more of her students. At a deeper level, Joan's regard for herself and her purpose as a teacher began to be transformed. She described the shift as a "huge weight off my shoulders" as she increased the value of her own perception and authority. Through the combination of informational and transformational learning, Joan gained greater freedom to use her teaching experience and love of art to structure learning experiences and follow her students' evolution in art making.

5

**John Walton:
Being Clear Through the Use of Modeling and Criteria**

John Walton, a science teacher at Alton High School, signed up for Studying Skillful Teaching midway through his fifth year of teaching. He felt it was a good time for this kind of professional learning because, he said, "I was finally at a place where I could focus more on how I am getting the students to *learn*." For his first four years, he recalled, "I was just trying to survive in terms of content, how to manage the class, the day-to-day stuff." John described his experience with a shake of his short red hair and a rueful grin, remembering those overwhelming early years.

It was now September, the beginning of a new school year, and John's sixth year as a teacher. We sat in his windowless science classroom with three fans whirring as they pushed stale air around and talked about his teaching and his recollections of the course. John had tried several jobs before becoming a teacher but none gave him the satisfaction he found in teaching:

I like the energy; it keeps my mind occupied. There's always something happening so I always feel like I'm engaged. I want to do something challenging. The flip side is that I go home exhausted all the time. . . . I like being in the role of being looked up to as somebody students can trust and respect. . . . I want the students to see somebody who is passionate about something . . . and hopefully get the support to find out what they are passionate about and go for it. . . . And I love the comedy. It's so funny because I will have these ideas of what I want to say . . . and then the students just bring so much to it that I would have never expected. It makes me laugh a lot.

John responded to my question about what endured from the course in his thinking and practice with a characteristically thoughtful pause. Then he zeroed right in on two instructional strategies that had become more important in his teaching:

providing models and giving criteria for success. The course content emphasizes the use of models and demonstration accompanied by verbal explanations to enhance a teacher's clarity of instruction. In addition, course participants work with the concept of "criteria for success" to better define expectations for student performance. Since the beginning of his teaching career, John has often used models of concepts and demonstrated procedures to show his students what he had in mind. His participation in the course raised his level of commitment to this instructional approach and he refined his practice. He also learned to be more specific about the criteria that his students' work should meet. John explained what he realized as a result of the course:

I find many times I have ideas of what good work is in my mind and I think these ideas are obvious. However, based on the work I receive from students, I know the ideas are not obvious. So this is my goal: to be clear through modeling and criteria for success so that my students can succeed and so that it is clear to them what they need to do to improve.

Implicit in John's last phrase "what they need to do to improve" is an expectation that his students will exert effort to raise their performance. He hoped that using criteria would not only help him be clearer about expectations for quality work but would also encourage students to "take ownership of their learning" and work hard to improve. John's sense of purpose about the use of criteria is very much in keeping with the beliefs espoused in Studying Skillful Teaching.

The changes John has made, he believes, represent an improvement in his practice. Yet he also views the increased focus on models and criteria as problematic. On the one hand, John acknowledges the merits of using a model to illustrate an idea or show students how to do a certain kind of work. Furthermore, he feels that it can be helpful to give them clear descriptors (or criteria) that their work should meet in order to be successful: "They seem to do best when it is clear what is expected." On the other

hand, John points out, specific criteria may “limit creativity.” He describes the problem: “You can set an objective that’s very, very clear but how do you keep the range open so that kids can be creative?” Also, he has noticed a tendency towards passivity and compliance when criteria are very specific. Students are sometimes lulled into thinking they have done an acceptable job by “checking off” all the criteria, but they don’t put in extra effort, and their resulting work “might not have any depth to it.” John recognizes the positive aspects of making expectations clear, but he also worries about the potential for constraining or disempowering students by spelling out specific guidelines. The research study gave us both the chance to see how John’s efforts were playing out in a class and to explore the pros and cons of being specific.

As it turned out, our work together did not simply address the focus he selected; we also became aware of an underlying tension—the difference in expectations between John and his students about the purpose of science class in the larger scheme of things. My visits to class and our conversations illuminated his ideals of teaching and learning and gave him a chance to discuss some frustrations. As with so many teachers, John’s ideals of teaching, his convictions about student learning, and his sense of what is important in professional learning have roots in his background and personal story of becoming a learner.

Drifting Through High School and into College

High school in a working-class city outside of Boston was an unsatisfying experience for John. “I was a very quiet student. . . . I felt fairly invisible . . . just going with the flow wherever life was going to take me.” John was adrift in a class of 500 students. He had a couple of strong friendships but did not feel much connection to his teachers. His

parents thought education was important and urged him to do well but they had little capacity to guide his efforts. Looking back, John commented, “I don’t feel that I had any control of my high school experience at all.” John describes himself as a “how” learner, one who learns best if he can be *shown* how to do something or to think through an idea, and then be given a chance to experiment. He recalls little of that kind of modeling and demonstration at his high school. Nonetheless, John did relatively well academically. He took honors courses and graduated 25th in his high school class. When the time came to apply to college he might have benefited from being shown how to write application essays, but no such guidance was available at home or at school. Floundering in the college application process, he applied to four schools for engineering “just because my math teacher said, ‘Well, you’re strong in math. You might as well do engineering.’” He had “no idea what engineering was or what it would entail.” John proceeded to enroll in a state school 25 miles from his home. “I come from a working-class family,” he said by way of explanation that his choice of college was governed by “the funding.” In retrospect, he decries the lack of guidance: “I don’t believe that I had support from my family, because they didn’t go to college, or from teachers or guidance counselors because they didn’t know who I was.” He wishes that the adults in his world had shown him how to go about learning and had prepared him for a “more challenging school environment” or at least provided him with “options.”

One of the options he didn’t initially consider was to pursue his biggest interest: meteorology. “Ever since I was a young child,” John explained to me, “I’ve been passionate about meteorology and the weather.” However, after he matriculated in college, he “didn’t even consider” meteorology as something to study. He also recalls that “in the back of my mind I always thought about being a teacher.” But he did not

think it was a viable option for him “because it was never presented as something good to do.” It was the mid 1980s in Massachusetts; John remembers “there was a lot of negativity toward teachers.” Pursuing his interest in meteorology and teaching was not yet in John’s view as he entered college with the intention of majoring in engineering.

Taking Charge of His Learning and His Life

In the middle of his sophomore year in college, John came to a turning point that enabled him to step out of his own invisibility, take ownership of his learning, and follow his passion for meteorology. John was having a rough time doing well in the engineering courses and was feeling pretty “deflated” by his poor results. It was not a good fit. One of his college “study buddies” had chosen meteorology as a major. John did not even know courses on the subject existed at the university, but when he heard about it as a major, he knew that was what he wanted to do and believed he could succeed at it. He went home and told his parents that he had decided to change his major. “They were not excited about it at all . . . and they basically said, ‘If you’re going to do that, then you’re going to have to do college on your own.’” Despite their lack of emotional and financial support, John went ahead with the change in major and took a part-time job, working 25 to 30 hours a week while in school full-time. He remembers it as a stressful period, not only due to parental disapproval of his academic choices but also because his mother was ill and, he explained to me, “I was in the process of coming out as a gay man.” I was moved to exclaim, “All this at once?!” John replied, “It’s amazing. . . . I must be an incredibly strong individual to have gone through all of that and to have ended up here [at Alton High].”

Teaching was not yet in John's plans when he graduated with a degree in meteorology. His next life step built on his degree but led him to a dead end, and he experienced that feeling of drifting again. His part-time job senior year for an environmental company had evolved into a full-time position after graduation. His role was to analyze and validate weather data. Over the three years of doing this work, John became dissatisfied because "it was not challenging . . . and really, really boring." It was the early 1990s, during the recession, and a career path didn't seem clear. John felt, "Here I am again, kind of just going through life without really knowing what I'm doing." So, John declared,

I stopped. I decided to quit my job. I moved to the city. I became a waiter and I started traveling. . . . I felt that I had a really good depth of knowledge in science and math but I didn't have a breadth of knowledge in terms of politics or life in general. . . . I used that time to sort of figure out what I wanted to do.

Civil rights captured John's interest. He volunteered for an advocacy group that led to two successive jobs analyzing data on minority hiring and then investigating discrimination complaints. "This really opened my eyes," he said, but it wasn't enough. John went on, "I was also feeling in the back of my mind that I could do more than this." He went for a walk along the ocean with a friend and talked about his struggle. "What should I do?" he agonized, "I feel like I'm 24, 25, but I don't know what I'm supposed to do." He recognized the lack of fit: "I was making good money and living in the city. Everything was fine. But I knew it wasn't what I went to school for and it just didn't click. It just didn't feel right." John recalls explaining to his friend, "I have to be somehow involved with the weather." His friend suggested becoming a teacher so that he could teach meteorology. John recollected his early memories of "corralling all the

neighborhood kids” and teaching them. He remembered liking the routines and structure of school, and that idea in the back of his mind of becoming a teacher came forward.

John started taking education courses at the University of Massachusetts at Boston and observing classes in schools. He recalled his strong reaction. “It just all made sense to me. . . . It felt like I had come home. I knew I wanted to be a teacher. I wanted to teach math or science and I knew I could do it.” He took courses to prepare for a position as a secondary school math or science teacher and “great things began to happen.” He found out about a part-time science job opening at Alton, the large urban high school where he now works, but he needed to complete his student teaching. The high school was particularly interested in John’s background because they wanted to offer an elective in meteorology. John negotiated with the science department head: “This is the deal, Terry . . . is there some way I can teach the two classes and then student teach?” They worked out an arrangement that suited John’s learning style perfectly because he was *shown* what to do. John observed his mentor teacher in the morning and then “followed everything she did” when he taught his own classes using the same curriculum in the afternoon. John has been 1 of 22 science teachers at Alton ever since.

John’s negative experiences as a student in high school, where he felt invisible and poorly guided, did not prevent him from returning to a high school environment as a teacher. In fact, he chose teaching in order to stay involved with a subject he loved and to encourage students to be engaged in their learning.

Freshman Physics: Providing Models, Defining Criteria for Success

During our first interview before the school year began, John looked at his schedule and picked a ninth grade physics class as the focus for my visits. He had not met the students yet, but it seemed a good choice because he had had a great freshman class the previous year, he knew the curriculum well, and we could debrief right afterward during his lunch period.

I came to visit during the third week of school and observed John model and describe criteria for a successful graph. John's freshman physics students ambled into the classroom and sat in pairs quietly at the black science tables. One of them had to sit awkwardly at a smaller side table because there was not enough seating for all 25 students, only 6 of whom were male. I set up my laptop on a side table and after John introduced me to the class I settled in to watch how he provided modeling and developed criteria for making graphs. John asked students to recall their previous class session when they had set up tiny motorized car ("buggy") races down the hall and collected data about time and distance. He turned the students' attention to graphing because he wanted them to use their buggy data on a graph to depict the relationship of time and distance.

John began with a generic model of a graph. He drew a horizontal and a vertical axis for a large graph on the whiteboard at the front of the classroom. At the side was a section that he labeled *Good Graph Characteristics*. "I'm going to explain to you how to make a good graph. How many of you have had experience before, making graphs?" A few hands went up. John passed out paper and explained that he expected them to copy what he did on the board. "You will use it as your template. Hold it in your notebook to refer to when I ask you to use graphs from now on." John asked the

students to contribute their ideas for each aspect of a graph as he drew the features and then listed the characteristics next to it. These characteristics were the criteria for success that John expected to see in his students' graphs. He addressed concepts and procedures in scientific graphing, such as labeling each axis, assigning intervals, locating points, using scales, and estimating position. Students copied the graph on their own papers. Some listed criteria next to it; some used another piece of paper where they had recorded their buggy data during the previous class.

John finished the modeling of a graph and the description of criteria by stating his expectations and referring to the buggy data already collected. "You know what I consider to be a good graph. I want you to use this form from this day forward. This is what I'd like you to do: use your data to make a good graph." John circulated through the classroom as most students began to graph their buggy data to show the relationship of distance and time.

After the period was over, we squeezed some chairs into a small science supply room, took out our lunches, and talked over the class. John said that for the most part it went as he had hoped. He compared his current approach to his past practice: "This year," he said, "I was clearer about exactly what I wanted by having them do a model." He felt that having a model graph laid a good foundation for the year's work but he noted that some students were more eager to graph the buggy data than to spend time making a model graph. Comparing this group of students to past freshman classes, John described the range of performance as "typical" for a heterogeneous class. He characterized the students as generally "motivated, willing to learn, on the ball, attentive." Unlike previous classes, however, they seemed "really reserved" and he needed to "prompt them to answer questions." He paused and said somewhat wistfully,

"I'm having difficulty connecting with them." Regardless of the students' reserve, John was satisfied that by establishing criteria and a model for a "good graph," they should be able to do a thorough job displaying findings from data. In this early time of the school year, John was not concerned with the possibility of criteria narrowing their creativity; he simply wanted to be clear about his expectations and to show his new freshman how to produce high-quality results.

Encountering Pros and Cons

During the fall John used models and criteria to meet his two goals—to be clear in his explanations and to foster the students' investment in their learning. When I came back to visit his class a month later, John reported that the students were still fairly reserved but that they tended to get their homework done and perform reasonably well on tests that asked them to tell what they knew. However, their work on projects of applied knowledge had not been as successful. In assignments that expected them to bring all their knowledge to bear on a task, to apply and *show* what they knew, John felt they took little initiative in their work and did not seem to have "internalized it or owned it." He wanted his ninth graders to go beyond the specifics of a project; to engage in the ideas that the work brought up. But John noticed that the students seemed to have different priorities; they would often ask him to define what counted specifically for a grade. The possible downside of making criteria explicit seemed to be apparent; John wondered whether his efforts to be clear since the beginning of the year had created an attitude of "tell me what you want" among the students and had fostered a limited vision of what could be learned. John stated emphatically, "They are not looking at the big picture. . . . This is my big frustration."

The class I observed illustrated just what John was talking about. The students were attentive but quiet; their individual work on homework was accurate and they were willing to share their prepared answers in class. Yet when John gave them a group project in which they needed to apply their knowledge of velocity and create a large graph, the students evidently had difficulty seeing the larger possibilities and applying their creativity. "I was looking at this large graph as a creative way to end [the unit on] motion," John explained to me afterwards. "I figured they had all of the tools and I assumed that they would know what was expected. . . . I thought I was clear that I wanted a good graph using all the techniques we had talked about." John was not pleased with what he saw and heard as he circulated from group to group. He was peppered with questions about what was expected. Group productivity varied widely during the work time so they were all at different levels of completion. Some groups told John they were "done" but were actually missing a number of key criteria in their graphs. John ended the class with a reminder that the presentation of these group graphs to the rest of the class would begin the next day.

Reflecting on the class afterward, John seemed disconcerted. He focused first on his teaching practice as a possible influence on the results he saw: "I audibly said a lot of the things I wanted but I didn't write them down. I said them [expectations] in an unstructured manner and I think that went over kids' heads." He imagined doing a better job by setting up the assignment with a visual model and depicting "exactly what I'm expecting." But then, thinking it over, he expressed disappointment and frustration with his students. From John's point of view, they had not internalized some basic work habits and they were not digging deep into the learning. He felt they should have been able to do this graph with greater independence. Most of his students, on the other hand,

seemed less invested in “digging deep” and more concerned about meeting grade requirements. John seemed disappointed not only in his students’ current performance and attitude, but also in the persistent lack of connection he felt with them. Last year, he recalled, he had had a “great relationship” with his freshman class. This year, he felt a good sense of connection to his students in other classes. But he lamented the lack of satisfying relationship with this group, saying it was “the most difficult class I’ve ever taught.” John was clearly frustrated with the gap he felt with these students.

Listening to Students, Looking at Their Work

For the closing segment of the research study, John and I decided to listen to students talk about their learning and then to look at samples of student work. We wanted to understand the impact of models and criteria on their learning by examining results and hearing students’ points of view. John and I set up some time to interview students. We also met to look at a selection of write-ups students had done on two projects. The students’ work and comments not only gave us perspective on the clarity of John’s use of modeling and the specificity of his criteria but also clarified the difference in expectations between John and his students.

John set up two projects for students to complete and write up. One had clear criteria and a model; the other did not. The first project involved designing balloon rockets for which there were specific criteria displayed in a rubric. For the second project, named the “egg-drop container,” John was intentionally vague; he provided no model and few criteria. He simply said, “Put in as much effort as it takes to do it well.... Think of successful presentations you have done in other classes and at other times in your education.” We were curious to compare the results.

John was surprised that his students generally performed better on the project that included few criteria. The overall quality of the egg-drop projects and write-ups was higher than for the balloon rocket design. Quite a few students had complained to him about the lack of guidelines for designing a container in which an egg could be dropped without breaking, but this project gave them more chance to be creative so John was pleased, if puzzled, by their strong performance. When we examined samples of student write-ups, we noticed that some students had carefully adapted the guidelines for writing up the balloon project and used them to complete the egg-drop write-up. Other students' two write-ups were quite different one from the other in structure and in level of detail and thought. The mixed results made it hard for us to develop even tentative conclusions about the effect of using models and criteria based on these two project write-ups. We turned to the students to learn more.

The interviews of students gave us new perspectives and confirmed some of what we already suspected. We explained our interest in their perception of how John makes his expectations clear. Sometimes there was strong consensus on a particular point, but just as often there were different opinions. More than two thirds of the students were reserved (as usual) but some were talkative. The ninth graders addressed their comments to me in a manner that was polite but somewhat wary.

"We didn't know what he meant," said a student about the egg-drop project, "One person could do it differently than another." A second student concurred and said, "All he told us was 'build an egg drop container and show me your effort.'" But two other students took a different tack. "He told us he wanted to be vague on this project," said one. "It gave us a chance to be creative and everyone could be different, which was good." "Yeah," said another. "The project was open-ended, which was cool." However,

even those who appreciated the open attitude about the construction of the egg container itself were not enthusiastic about the lack of guidelines for the write-up about the project. One student was emphatic: "If he had given us strict guidelines about the write-up, it would have been more effective. We might get a bad grade because we didn't know what he wanted." Another student who had been listening to these opinions summed up her view: "There is a big difference between giving us the room to be creative and not giving the information that we need to give him the product he wants." Finally, a student who hadn't yet spoken countered most of what had been said: "I think the write-up part was very vague but he gave us options to show effort. I thought it was fine and I knew what to do because we had to explain something with effort earlier this year." Despite the majority opinion about needing more guidance, most students produced better results for the egg-drop container than for the balloon rocket design, which had been accompanied by specific criteria.

In preparation for the balloon rocket experiment, John led the class in defining the criteria and in making a rubric to guide the design and write-up. "We came up with the rubric so we had a say in it," one student explained to me. "That's my favorite way to know what the expectations are." Many students nodded and another chimed in, "I agree." A student compared it to the egg-drop project: "It was easier to understand exactly what to do and how it was supposed to go." Then another student made a comment that may begin to explain why, despite the clarity of the expectations, students generally did less well on the balloon rocket project. "The balloon rocket was harder than the egg-drop. I had no idea how physics could help me design it. . . . Sometimes it's hard to see the connection and put it into scientific language." A few other students nodded and John later agreed that the physics concepts were more difficult to apply in

that project. John's informal effort at setting up two projects with significantly different levels of guidance so that he could look at possible differences in student work was confounded by the difficulty level of the science concepts. Nonetheless, the dialogue between ourselves and with the students offered plenty to ponder, and the students' conversation included comments on John's clarity of expectations in other aspects of science class.

The use of visual models came up when students mentioned graphs. "He showed us what it [a graph] looked like and what the criteria are." When students were asked whether that was helpful, there were many nods. In a more extended conversation with two students, we learned that if they were asked to make a graph at this time in January, they "might have to look back at the template." They talked about the importance of having a visual to support their thinking and work. One turned to me and explained in an animated voice, "Mr. Walton actually draws out everything in slow motion." The other agreed and talked about understanding a science concept in terms of learning style. "Some people don't have to visualize it; some people do. Personally, I have to visualize it." He reminded Mr. Walton, "Remember when you explained with pantomime? You showed us physically what we needed to do . . . that's a kind of visual learning." The other student brought the discussion to a close: "Since it is physics, you really need that visualization." John's own learning style of preferring to be shown *how* to do something and to visualize an idea through models seems to come across in his teaching style. From these students' point of view, John's use of visual modeling along with oral explanations is an important source of guidance for their learning.

We learned from these interviews with ninth graders how they perceived John's efforts at using modeling and criteria and, more generally, how they interpreted the

clarity of his expectations. But at a deeper level a gap in expectations between John and his students became evident. John wants his students to internalize the qualities of good work and move beyond the requirements to think more deeply and raise important questions. But many of the ninth graders did not appear to care about going beyond the specific criteria they *needed* to achieve the grades they *wanted*.

Differing Expectations

John observed that on the whole his freshmen understood the course material, were diligent about homework, and were earning decent grades. But their reasonably good academic performance, as measured by standard indicators, was not enough to satisfy their teacher. John wants students to feel “passionate, curious, and . . . take ownership of their learning.” In his role as teacher, he sees himself as one who demonstrates passion and knowledge about his subject, invites good questions in the interest of fostering learning for its own sake, and encourages students to take charge of their learning.

John described his current perception about the relationship between teacher and student: “It is not all up to me. I feel like they should be more active. . . . I’m definitely thinking more about what *they* can do rather than what *I* can do.” John is consciously trying to put students at the center of their own learning. “I want to provide guidance and support, to help them focus . . . and lend my expertise.” As part of that effort, John spends time and energy modeling procedures and ideas, setting criteria for quality work, and giving feedback on results. Grounded in his own learning style, John is conscious of showing students *how* to work and learn. He believes that these efforts on his part should be met by students’ equal efforts to learn deeply and to reach expectations with

responsibility and increasing independence. John imagines a classroom atmosphere of energy, respect, and trust that supports a collaborative relationship between students and teacher and among students. “I would like to have us all work together as a team and learn from each other. . . . I would like them to offer more so it could be more of a dialogue.”

The high hopes and expectations that John holds are countered by three intersecting realities—his own mix of strengths and weaknesses as a teacher, the students’ perceptions of learning and of their role as students, and the context of the school and community. John is reflective about the first reality, his own teaching. He ponders what worked, what did not, and what he could do better. He uses professional learning opportunities to add to his repertoire and to reflect on the beliefs that guide his teaching. He tries to tune into students and figure out how to make a connection with them. However, John finds it hard to deal with students whom he perceives as having expectations of themselves and attitudes toward learning that are fundamentally different from his own.

This is the second important reality that challenges John’s hopes: the students’ sense of purpose and perception of their role as learners. He gets disappointed when the ninth graders are “passive, just waiting for directives” because their stance puts him in the role of “dictating,” which he does not want to do. Instead of the “good questions” that John hopes they will ask about larger concepts to deepen their understanding, his students tend to ask questions to pin down exactly what they have to do so that their work is correct and will merit a good grade. John decries their focus on grades as the “end” they have in mind, wishing that they would care about learning as an end in itself. Overall, these students come across to John as compliant and willing to exert a

moderate effort to get a reasonable grade—as long as directions are clearly and frequently spelled out. His frustration seems to spring from a sense of missed opportunity. John is offering them enthusiasm, support, and challenge, but the students are not responding with energy, initiative, and curiosity.

The context for John's teaching and these ninth graders' learning is the third powerful factor intersecting with his hopes. He views the standard structure of public school as a barrier to the ideals he has for learning:

The way we have education set up in this country is ridiculous. We expect students to come into class for 50 minutes and get something meaningful out of it and then go home and then come back. They don't have any time at night; they are distracted by instant messaging on the Internet. I mean, when do kids ever have time to really think and process? They don't.

Perhaps, John speculates, the students do not come into class “with good questions to ask” because they “have been trained to be so passive” by the structure of school. The curriculum for this particular physics course is part of the problem, too. Although John thinks that the course has a “good breadth of topics,” he also feels pinched by the pressure to cover them all and decries the organization of the course as a “cookie cutter” approach. “It is not a deep experience whatsoever because of the amount of time that we get to spend on things and how much we have to cover.” Finally, John's goals for learning seem to run counter to the aims that his students and their parents have for the physics course: “It isn't about curiosity of the mind; it's about getting into college.” The community where he teaches is quite different from the working-class city where he grew up. Here, the push toward college begins early and increases with every year in school.

Indeed, a theme running through many of the students' comments in our interviews was a concern about grades and the goal of college. They want to know what counts and how it will be counted. Judging from the nods in the group and the other comments that echoed the theme, one student voiced what many students seemed to be feeling:

Sometimes it isn't really clear what to do to get the grades you want. Because once you understand the concepts, then it is about grades. There's so much pressure from parents, school, college to get good grades. It matters so much in the long run. Oh, so we want to learn something? Yeah, but if we don't get good grades . . .

She did not complete the sentence verbally, but the roll of her eyes did the job.

It appears that both the teacher and students in this ninth grade physics class had different goals about the purpose of science class and the roles that each of them plays. John's purpose is a deeper understanding of science; he imagines his role as a guide for student learning, collaborating with them to that end. The students envision the goal of getting into college; their job is to do what the science teacher expects as a step along the way.

Interpretive Reflection

Our work together turned out to have a double layer. John and I followed the research design by investigating his use of models and criteria, and we found ourselves thinking and talking about issues of expectations and role in the context of Alton High School. John's focus on two instructional strategies from the course that have endured in his teaching brought out a central dilemma: how to be clearer about expectations without compromising student creativity and inadvertently fostering dependency. John wants it all with his students: he wants them to follow guidelines, develop independence, be

curious about ideas, and care about the quality of their learning—high hopes coming from a teacher who experienced so little of these ideals in his own schooling! Yet John's choice of enduring learning from *Studying Skillful Teaching* actually has roots in his background, his decision to teach, and his development as a learner. His professional learning was also influenced by the progression of his career, his evolving sense of personal authority as a teacher, and the context of Alton High.

The frame of reference that bounded John's "way of knowing" early in life was shaped by his upbringing in a working-class family of few means, situated in a blue-collar community. Although his parents believed education was important, neither of them went to college and they were relatively incapable of guiding John in any substantive way through his schooling. John felt unsupported and invisible in school—"they didn't know who I was"—and in retrospect, he wishes he had been able to have more supportive relationships with his teachers, more explicit guidance about *how* to go about learning or applying to college, and "more challenging" options. At the time, however, John's view of his world didn't include a sense of choice beyond what was acceptable to his family and economically feasible. It was not until college that John's dissatisfaction with his situation would lead him to enlarge his sense of possibility: he took steps to declare his identity as a gay man, pursue his strong interest in meteorology, and marshal his own efforts to deal with economic limitations. John's frame of reference expanded as he perceived the world as larger place where he could take greater control over his own life choices.

In deciding to become a teacher, John seems to have chosen—perhaps unconsciously—to rectify the conditions he experienced as a student: he wants to "connect" with his students, offer them guidance for learning, and provide challenge.

The use of models and criteria for success can be seen as part of John's repertoire for giving students the guidance that he believes they need—the kind he did not receive when he was in high school. On the surface, some of John's conscious explanations for his choice of teaching are typical of many teachers' rationale, as documented in the research by Lortie (1975) and Huberman (1993). He felt a sense of "coming home" to a role he had played out at as a child, to routines and structures that were familiar and comfortable, and to a subject matter that he was "passionate" about. And yet, John's choice to teach may be seen as unusual, according to Lortie's research, because most teachers do not choose the profession out of "experiences with injustice or incompetence" (1975, p. 46). Huberman's research confirms the low incidence of teachers who choose teaching out of a desire to "do better than one's own teachers" (1993, p. 114). John's heartfelt comments during our research gave voice to his desire to build a relationship with his students and use pedagogical strategies that were more responsive and effective than those he had experienced as a student.

The pedagogical strategies that were salient to John in the course corresponded to his own development as a learner in two ways. First, he describes himself as a learner who benefits from being shown how to think about or do something—and then is given the opportunity to explore. "I'm a *how* learner," John stated. "This [providing modeling and criteria] fits me. It's a natural." This is not surprising, because teachers' preferences in learning are often evident in their approach to teaching (Kolb, 1984; McCarthy, 1982; Silver, Strong, & Perini, 2000). For John, choosing to refine his teaching with models and the use of criteria was consistent with the way he learns.

The second way John's development as a learner may have influenced his susceptibility to certain aspects of professional learning is evident in the turning point in

his life, midway through college. Despite his parents' lack of support, John went ahead with his plans to change his major and finance the rest of his college education. At that time his attitude shifted and he "took ownership of learning," a phrase he uses often to describe what he wishes his students would do. He knows how important that attitude is, after drifting through high school and feeling unconnected to learning. Years later, in *Studying Skillful Teaching*, John encountered the research on expectations and he seized upon the instructional strategies of models and criteria to make expectations clearer to his students and to boost active learning. He consciously provides encouragement and challenge to his students, asking them to step up and take charge of their learning and reminding them that he is available for extra help as needed. The course served to reinforce John's beliefs about learning and his actions with his students.

The natural progression of John's career as a teacher also had an influence on what he found compelling in professional learning. In the first few years, often overwhelmed by the demands of learning to be a high school science teacher, John might have been quite content with this diligent, compliant group of students whose grades reflected a reasonable understanding of the freshmen physics curriculum. Now in his sixth year, however, John had moved beyond the beginning stage of teaching. His current level of concern, as described in formulations of teacher career stages (Fuller, 1969; Huberman, 1993; Loucks-Horsley, 1987) had shifted from survival to a greater interest in mastery of his practice and attention to student learning. His choice to increase his use of models and criteria can be seen as a move to strengthen his instructional skill and raise expectations about the qualities of student performance.

Intersecting with John's career stage is his development as an adult, exemplified by his evolving sense of personal authority. As John became more grounded in his own "authority as a knower" (Belenky, Clinchy, Goldberger, & Tarule, 1986), he shifted his view about the kind of role he wanted to play with students. That shift, in turn, influenced his perspective about what was important to learn professionally. As John pursued and changed several jobs in order to "figure out what I wanted to do," he developed his sense of personal authority for the direction of his life. When he became a beginning teacher, he naturally conformed to expectations of his role prescribed by the science department and the school, and he unconsciously adhered to his own internalized image of what it meant to be a teacher. Now, moving out of the beginning teacher stage with some years of adulthood to inform his perspective, John's development resembles a *self-aware* or *conscientious conformist* stage (Loevinger, 1976), characterized by "the ability to think in terms of alternatives, exceptions, and multiple possibilities in situations" (Weathersby, 1980, p. 37). This stage is also described by Kegan as the transition between the third and fourth orders of mind (1982, 1994). In John's evolving self-definition as a teacher, he desires a more collaborative, facilitative role and wants his students to become more independent in their learning, "dig deeper," and ask more questions. The models he provides and the criteria he delineates for good work are part of his coaching repertoire: he wants students to use the information actively to raise their performance. His ninth graders, however, do not seem to have the same ideas in mind; they are caught up in their own developmental perception of authority, reinforced by the classroom context where they are students.

The context in which John and his students teach and learn powerfully influences the way in which his use of models and criteria for success is perceived and

used by students. John's perception that such teaching approaches should guide students toward high-quality work would likely be endorsed by his colleagues and the administrators at Alton. John works in a district that has embraced the national commitment to teach students to reach high standards; using "criteria for success" is considered an important pedagogical strategy in the effort to "teach to standards." The students, for their part, perceive the models and criteria that John provides as useful, but probably not because they are aware of the larger standards they are expected to strive for. One small group of students explained to us that visual models help them understand ideas in science. Most student comments, however, focused on the use of criteria as important so that they could "give him [their teacher] the product he wants" and thereby get the grades they want. The larger ideas in science were clearly not their priority because, as one student said, "There's so much pressure from parents, school, college to get good grades . . . it matters so much in the long run." There appears to be a disconnect between the lofty aims of the school system about standards and the reality of day-to-day pressures felt by high school students trying to get into college. Caught in the middle is John, a science teacher who wants students to become independent learners, invested in deepening their understanding of science, and capable of using his expertise and guidance to advance their own learning.

**Dhyan Lehari:
Fostering Self-Awareness of Learning**

Currently Dhyan Lehari teaches third grade at Carter School in a large urban school system just outside of Boston. She has a small class of students this year: seven boys and ten girls. Eleven students are Caucasian, six are students of color. Dhyan describes them as a “very sweet group,” full of curiosity and good questions. Carter School was built in 1929; her classroom up on the third floor has very tall windows and a ceiling about 20 feet high. Her students’ work adorns the walls, goldfish swim around and around in a tank, and there’s plenty of room for class meetings, small group work, and individual desks. This is Dhyan’s fifth year teaching in the United States.

At her principal’s suggestion, she took *Studying Skillful Teaching*, which I taught in her district during her fourth year as a teacher. Her agreement to work on this research project gave me the opportunity to get to know her history as a learner and a teacher and to spend some time in the world of her current classroom. Dhyan’s story of being a learner and becoming a teacher is one of struggle and persistence. She prevailed in the face of considerable obstacles; in the process she developed a strong belief in the importance of becoming self-aware as a learner, a belief that is now central to her work with third grade students. Aspects of Dhyan’s story, starting in early childhood, reappear later as significant elements in her approach to teaching and professional learning.

As a child and a teenager Dhyan lived in Hong Kong. Daughter of an Indian father and a Vietnamese mother, she lived with her parents and her younger sister in a community of expatriates where her father opened a business selling sari cloth. English

was the language of business; Sindhi was the language of the home. Dhyani used to hear her father's story about his own lack of schooling. He came from a poor family in north India and had been in school only 10 years when the choice came to continue studies or go to work. The tale of his difficult choice gave weight to the importance Dhyani's father placed on the educational opportunities that he worked hard to provide for his daughters. She remembers the story vividly:

It was very sad. My Dad is an intellectual. He loves to learn and he's very smart. But his father said, "Well, we could send you [to school]. If you carry on studying it's going to be a little tight on our budget. What you could do is go out and get a job and help the family." My Dad told me he was riding his bike—I think it was the first day of school—and he remembers standing outside of school and trying to decide, "Do I keep on going to the market and find a job or do I go here now and register to study?" He decided to go and work.

Being a Learner in School: A Series of Shocks

When Dhyani was four, her parents enrolled her in a Chinese school where Cantonese was spoken.

There were 50–60 kids in a classroom, one teacher, and we were somehow told to behave in a very strict way. . . . The principal had a big wooden bamboo stick that she would use to hit us. . . . We were tested three times a year and there was a lot of competition [about] who would make the first three. Everyone knew our rank.

Dhyani did not thrive in that school and she left after second grade.

I think my parents felt that the Chinese school was killing my spirit and I was becoming more and more quiet and withdrawn. They heard a lot of good things about the British system, where they reinforced your self-confidence and praised you regardless of the product. So they sent me to the British school.

The new school was much more expensive than the Chinese school and demanded a greater sacrifice from Dhyani's parents.

As it turned out, Dhyan simply moved from one incomprehensible environment to another. They tested her when she arrived in the British school and decided to have her skip two grades. There was little homework and much less rigor than in the Chinese school. "It was a complete shock to everything I knew how to be in a school," Dhyan recalls. "Here you were supposed to voice your opinions; you were supposed to be animated. In the other school, I was supposed to be quiet as a mouse." And then there was the language difference. Although she spoke a little English, Dhyan could not understand her teacher. "My first teacher was from Wales so he spoke with this Welsh accent and I could *not* for the life of me understand what he was saying." The cultural and language differences combined to create a situation that Dhyan remembers as

a struggle. . . . Although academically, I could keep up, I couldn't understand what people were saying. All the rules were changed and all the faces looked different. I didn't know people had blond hair. I didn't know people came with these color eyes."

Of those early years, Dhyan says, "I remember not liking school. It was very, very horrible."

The adjustment to the British school was difficult for some time. Dhyan's struggles with the language made her wonder if she was not very smart. The students were tracked into "ability groups" and so Dhyan and her fellow students understood "you're with the smart group or you're with the dumb crowd." Nonetheless, the school emphasized using strategies to improve learning and she became aware that her own effort made a difference. Dhyan likes to tell her current third graders a story of herself in that school which illustrates a turning point. "When I was 12 or 13, I didn't do well in science class. I was more interested in having friends and watching TV. I saw my science exams: I had failed. The next year, I decided to make some changes." She recounts her

decision to rise early in the morning to study, to stop watching so much TV, and to apply herself more in science class. After several months, she recalls, “I started getting really good grades and on top of that, I was learning a lot of facts and knowledge. I was excited because I was starting to take control of my own learning.” Not only was she “taking control” but she was also becoming aware of what it took to be successful. This newfound awareness would grow in the years ahead, would later become important in her guidance of her own students’ learning, and would intersect with professional learning.

Academically, Dhyan was so successful that she graduated from the British school at age 16 and went off to college in the United States. She was in for another culture shock. Dhyan’s parents urged her to choose a college close to relatives in Florida or Texas and so, sight unseen, she chose Lubbock, Texas. With a rueful grin she recalls the small town, the large lecture halls, and the sense of disconnect that she experienced as a student there.

I was mistaken a lot of times for being Mexican. . . . People would come up to me and start talking to me in Spanish and I would say, “I don’t speak Spanish.” Then they would look at me as if I was betraying their culture and that my parents didn’t raise me right. So I’d have to defend myself.

Dhyan’s warm, brown skin gave rise to misidentification and her spiritual beliefs were discounted in the religious proselytizing she experienced. “People were trying to convert others in a very aggressive way. So I felt I had to defend myself in that regard, which I had never come across, ever in my life.” Despite the cultural differences, Dhyan continued in college. “I took some courses in psychology and really liked the subject area.” She became interested in “how people thought and felt,” so she completed a degree in psychology. Little did she know then that she would become a teacher and that her fascination with emotion and thought would be central to her connection with students.

Becoming a Teacher in Hong Kong and the United States

After such a history of schooling, it is not surprising that Dhyan did not initially consider teaching an appealing career choice.

I never thought about becoming a teacher growing up. I hated the school environment, I really did. I guess I was successful in it but I felt there were so many bad memories associated with it that it didn't appeal to me. Being a teacher—what for? You're just going to make kids unhappy.

When she finished her degree in Texas, she returned to Hong Kong wondering what to do with a major in psychology. Someone told her that the Canadian International School of Hong Kong was hiring teaching assistants and, feeling a lack of direction, she applied. "I got the job as an assistant and absolutely fell in love with the job, the environment, the kids." She explains this surprising turn as "therapeutic." It was "cathartic because I felt like I was beginning. I was learning how to enjoy being in school." She experienced "the joy of learning and interacting with kids in a positive way. And so I absolutely loved it."

Dhyan worked for two years as an assistant in the Canadian school and during that time, she came to realize that "teaching was something I wanted to spend my life doing." Not satisfied with the option of getting the kind of teaching certificate offered in Hong Kong, Dhyan wanted to commit herself to more extensive preparation. She applied to several universities in Canada and in the United States; she ended up choosing Tufts University where she began a master's degree program in 1998. "It was incredible," she remembers, "so different than anything I'd ever experienced." The small, collegial atmosphere, the collaborative working relationships, and the mutual support for learning were completely unfamiliar to her yet very nourishing. "It was initially confusing,"

Dhyan confessed. She recalled wondering, “Where do I rank? Is this paper an A or B?” Her professors, she found, placed a high value on becoming reflective and “exploring one’s own potential.” She learned to write reflections that were not judged “good or bad” but instead engendered an ongoing dialogue. Dhyan came to value what she considers “real learning” and recognized that the Tufts program “really changed the way I thought about things philosophically.” She discovered the power of directing her own learning and appreciated the depth she acquired through becoming more self-aware as a learner.

With her degree from Tufts almost complete, Dhyan was unsure whether to return to Hong Kong or to stay in Boston. On impulse, she attended a job fair that resulted in an interview. The interview quickly led to a job offer as a third grade teacher in an urban school district near Boston. Dhyan shrugged as she told the story, “I didn’t want to relocate—too much moving. I wanted to stay in one place.” She has been teaching at the Carter School ever since.

Dhyan’s entry into teaching in the United States, particularly the first year, was quite different from what she encountered as a teaching assistant in Hong Kong due, in part, to what she calls, “the cultural piece”:

When I was teaching in Hong Kong there was a lot of students out there who I could connect with physiologically. We looked alike. We thought alike. We had that Asian upbringing. There was a common sense of how we behaved with one another . . . norms, those types of things that we all understood. Here I felt like I was having to learn the cultural norms. So that cultural piece affects me because I feel it is very different from what I knew. My first year I felt like I made no connections because I didn’t understand the kids and where they were coming from. They didn’t know where I was coming from. They thought I was very strange.

A sense of connection, missing that first year, is a critical ingredient in the teaching and learning environment that Dhyan values. Even after the adjustment of the first year, she notices that there continues to be a “very strong difference” between her

initial sense of connection with her Asian students and those who are white. She senses that the students who resemble her physiologically “feel more trust in me from the beginning. I don’t have to do anything to win their trust; they automatically give that.”

Forging a strong connection with every student has become central to Dhyan’s teaching: “I love that part of it. If I’ve made a connection with most of the kids in the classroom, I’m happy. I feel that it’s a successful year. If I don’t, then I feel really uncomfortable.” Connection, as Dhyan describes it, rests very much on her understanding of a student and is crucial to the student’s learning.

In my opinion, if I don’t understand the child in my room, if I don’t understand what’s going on in his heart, her heart, his mind, her mind about learning, about their lives, homes, friends . . . then if they are depressed, how is learning multiplication going to help them?

In particular, students who struggle with learning draw Dhyan’s attention; she is interested in those whom other teachers might have identified as troublemakers. “I feel like those are the kids I enjoy having and reaching out to and somehow making the connection.” She mentions her own struggles as a learner as clearly linked to her motivation as a teacher: “I think that’s why I have a soft side for those who make statements of ‘I hate school.’ . . . I want to help them through that and make them not feel so negative about learning.”

Dhyan’s history as a learner was one of struggle and triumph through her own effort. Her job as a teaching assistant led to a discovery of joy in learning. An opportunity to integrate joy and effort in learning opened up in Dhyan’s preparation at Tufts. All of this personal history was brought to bear in the early years of teaching third grade at Carter, where she learned the basics of leading the learning in her own classroom.

Clearly, aspects of her personal history also intersected significantly with her professional learning.

Influence of the Course: Awareness of Time and Effort in Learning

Dhyan participated in Studying Skillful Teaching during the winter of her fourth year teaching third grade. She was fairly comfortable with her teaching by that time; she felt that the connections with her students and their parents were reasonably well established. She welcomed the collegial interaction in the course, especially because she felt discouraged by the lack of teamwork among the other third grade teachers that year. Dhyan also appreciated learning many “practical ways to teach kids or reach out to kids.” Above all, what really struck her, and what has endured in her thinking and her practice, was the emphasis in the course on building student awareness of what it takes to be a successful learner—*effective effort*. Dhyan commented on the shift in her perception and actions:

The connection between time and effort as it relates to learning struck me as a very important message for me to give children because of the attitude it might create. It had never occurred to me to do something more active with the students on the learning process. I used to think, “We teach a unit. We assess you. Have you gotten it or not?” But now I feel it is important to address not just the students’ skills but also their attitude and awareness of learning itself. Now I am paying attention to the messages I’m sending about time, effort, and learning and I’m asking questions like, “What did it take for you to get it right?”

This new understanding became more conscious, Dhyan recalls, when she wrote a reflection on the second day of the course about a time in her life as a student when she made progress in something that had initially been difficult. As she wrote about the effort she put into doing better in science, she said to herself, “Yeah, this makes perfect sense.” She began to think of times when she didn’t do well and she realized that it was because

"I didn't care and I didn't put any time and effort into it." Along with that realization, Dhyan also remembered the role that key teachers played in encouraging her effort; she contrasted them with teachers who didn't seem to care and for whom she exerted little effort. Dhyan's recognition of the relationship between effort and success in her own learning (as well as the role of an encouraging teacher) spurred her to try some new approaches with all of her third graders. She wanted to raise their awareness about the importance of their own effort in learning and to give them some key messages about her own role by demonstrating that "I'm not letting you go. I'm here with you. And I'm going to guide you through." Reflecting later on the learning in the course, Dhyan commented that she gained a perspective and some vocabulary to make her guidance more explicit to her students.

Dhyan initiated "learning logs" that winter and began by asking her students to write in response to the prompt "What have you become better at because of your hard work and effort?" Alan, a third grader, had been on her mind because of his inconsistent achievement in class. He had "a lot of spunk and a lot of energy" but he didn't always do what Dhyan felt he was capable of and he gave the impression that he was "too cool for school . . . he was always questioning why we're doing this [work]." She was surprised to observe the seriousness with which Alan completed his first learning log entry. He voluntarily moved himself out to a desk in the hall, "away from all the distractions a classroom may bring." She was pleased when he brought his entry for her to read. "Alan's work was well written, well thought out, and just to the point of what learning is all about. . . . His eyes sparkled. I loved it." Dhyan proceeded to try various approaches to build Alan's awareness of himself as a learner and of his investment in his own effort. As he began to make some clear progress, she was heartened. In a reflection she wrote,

It was thrilling to see him make these conscious choices about his effort. I hope to continue to see him internalize this message about learning, and I want to spend more time with the rest of the class doing the same.

Dhyan's resolve to do more with her students about their awareness of learning continued after the course was over. When we began our work on this research study, five months had passed since the end of the course and Dhyan was preparing for the start of a new school year. We sat and talked in her quiet classroom. Most of the boxes were unpacked and the room was arranged for the new third graders who were to arrive the following week. Dhyan spoke with an animated voice about her plans. "I want to introduce what I value happening in the classroom in terms of learning . . . and make sure that the students understand certain language." She planned to begin learning logs right away and invited me to visit class on the day she introduced them to her students.

On that day, wriggling bodies of eight- and nine-year-olds settled into the class meeting place where Dhyan sat, a stack of small blue notebooks at her side. I sat nearby but not in the meeting area itself. Dhyan introduced me and her students asked me questions about my studies and my laptop computer. Dhyan smiled warmly as she listened to their questions and then drew their attention back to herself by asking, "What is our purpose here in school?" Students made general comments about learning, having fun, and doing math. Next, Dhyan made a link to their recent work on number sentences. "Last night I came up with a word sentence using math symbols. . . . I want you to look and think about it." She held up a small poster, the size of a bumper sticker:

$$\text{Time} + \text{Effort} = \text{Learning}$$

Students ventured some ideas about the meaning of the statement and then Dhyan moved the discussion along, inviting them to share experiences when they put time and effort

into learning. Sean recalled a first grade project on insects and stated proudly, “I think I did my best effort.” Dhyan raised the ante a little higher: “Here’s a question. How many of you had a time when you learned something really hard and you had to struggle?” Ten hands shot up into the air. Dhyan called on Jamila who related a story about watching *The Nutcracker* ballet when she was little, dreaming of being in the show, and then signing up for ballet class. “On the first day, I didn’t know anything. It was hard. I didn’t even know the words. I reached my goal because now I’m auditioning to be in *The Nutcracker*.” Jimmy offered an example of being a beginning skier, “even crashing into a tree,” and then he imagined himself getting better over time. Later, Dhyan expressed to me a sense of hope about Jimmy’s contribution: “I was so pleased to have heard him say something like that because he *does* have a lot of challenges in reading and writing, so for him to transfer that attitude” She trailed off, seemingly lost in thought about Jimmy’s capacity to make a connection between the effort he put into skiing and the effort she believes he needs to put into reading and writing.

Before her third graders got a chance to write in their new blue notebooks about their own experiences as learners, Dhyan offered one other small poster for their consideration:

Struggling? Have patience.
In time, grass becomes milk.

She explained to me later that this statement is one she uses for herself: “I have a meditation practice and it is one of the things that has been inspiring for me. I wanted to see if it worked for them. It was not something that these kids had probably heard before.” When Dhyan held it up and read it aloud, responses erupted from many students. Dhyan directed their chatter: “Third graders, I hear a lot of reactions. . . . Turn to your

neighbor and tell what you think of this.” After the children had spoken to each other for a minute or two, Dhyan quietly invited volunteers to share their thoughts with the whole group. Georgia said, “I think it makes sense because it takes a long time for cows to make milk.” Another student, Gary, mused, “I think it is interesting because grass is a solid and becomes a liquid in milk.” Camilla connected it to what she knows from home: “You have to have patience to learn. It reminds me of what my grandmother always says to me.” Dhyan took a few more responses and set them to work individually in their new learning logs. “We’re going to record experiences you have with learning throughout the year. Today, we are going to write about something that was hard and [at which] you tried to get better.” After a few logistical questions the students settled back at their desks, some writing immediately, others chatting or apparently thinking quietly. Dhyan circulated and consulted with several students; a teaching assistant scribed for one boy.

At the end of the writing period, Dhyan asked whether anyone would like to read his or her entry aloud to the class. Several students raised their hands. Jenny read about her experience learning to play soccer. Dhyan’s response emphasized time. “You talked about months and months . . . it didn’t happen right away.” Then Stephen read his entry and Dhyan commented, “Good start. You’re talking about the struggle, not feeling good about how it was going.”

The writing period was over, and it was time for the third graders to take recorders to music class. Dhyan and I were left in the classroom to ponder this beginning moment. Full of September resolve, Dhyan expressed her sense of mission.

This is the first entry into their learning logs so I really want to make this an important part of the classroom and once a week, have them jot down something that was a struggle and something that helped them learn better.

Dhyan wants to prepare even those students who currently find learning fairly effortless.

I say to them, "Right now, there are people who find things easy and they don't have to make an effort. One day, you'll come across something that's a struggle and you're going to wonder what to do. You'll feel not so smart and at that time, you'll remember . . . it does require time and effort.

Building on the Message "Time + Effort = Learning"

The insight Dhyan had acquired in the course had clearly taken root; its effects kept growing through the fall semester of our research together as she built upon the content of her initial class meeting. Sometimes her approaches were carefully planned; other moments came as spontaneous opportunities to keep delivering the message that Dhyan wanted students to hear. In the conversations and e-mail exchanges with me during this time, her constant reflection on her own efforts revealed the evolution of her thinking about self-awareness in learning along with ways to build her students' recognition of the role of time and effort in their own learning.

A week after the students started their learning logs, Dhyan began a writing period with some brainstorming. Three weeks later, a student unexpectedly made a connection to the idea of learning. Dhyan relayed the moment to me in a conversation. "We made a list of things that we could make a paragraph about; some main ideas like favorite animals, first camping trip . . . and then Joshua came up with, 'Let's talk about learning.'" Dhyan made a web on the board with "learning" at the center and invited ideas. Students offered items like "math," "homework," and "reading," and she wrote these around the web, but she wanted to move the discussion to a different level.

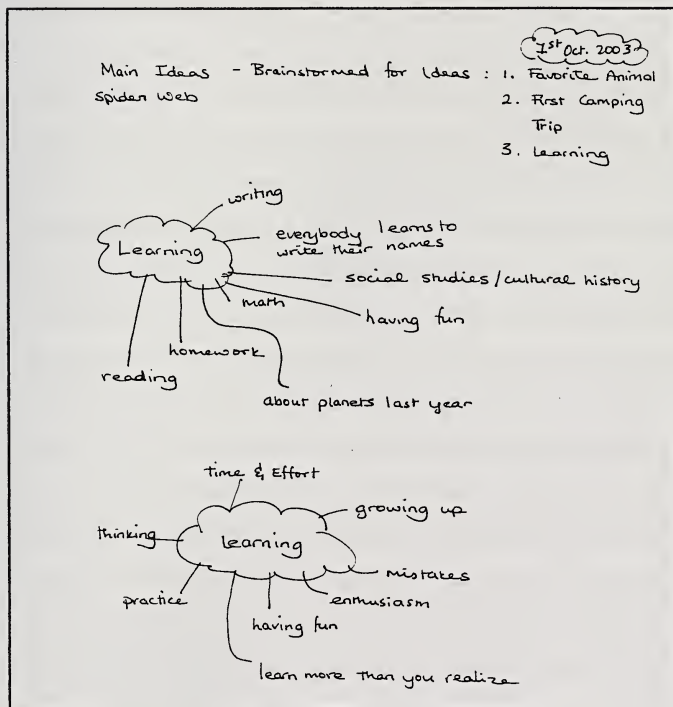
"You've given me a list of things that we can learn but what *is* learning, exactly?" she asked as she started another web. "It was so incredible," Dhyan recalled, "Evan came

up with, 'learn more than you realize' . . . and then Tina came up with 'time and effort.'"

Other items contributed to the web were "thinking," "practice," "mistakes," "growing up," "enthusiasm," and "having fun." Dhyana pointed to a copy of the web that she had made for me and commented,

They surprised me with their enthusiasm and that it is all about growing up. . . . I would expand on it, then they would expand on it. . . . It became very lively and I was so excited. It really was a lot of fun.

Figure 2: Learning Webs Created by Dhyana's Students



I wondered aloud whether the topic would have come up if she hadn't introduced the learning logs the week before. Dhyan said immediately, "I doubt it. I doubt it." When I asked why she doubted it, she said,

I don't even think that "learning" would have even hit the list because I did this [paragraph topic development] last year. . . . We ended up talking about "my first day of school" and there wasn't something as deep or as abstract as that [web].

Dhyan recognized that her own level of self-awareness influenced her guidance of students. She stated that such a metacognitive discussion about learning wouldn't have happened last year because "*I wasn't thinking about it actively enough.*"

When I visited Dhyan's class in mid-October, she drew her students' attention to the kind of time and effort it takes to revise their writing. Putting her students in the role of a writer who judiciously crosses out unnecessary information, Dhyan explained, "Each writer makes a decision for themselves." She guided them through a process of crossing out information in a sample piece of writing. Once the initial part of the lesson was over, Dhyan spoke to the whole class: "Now you are in third grade, the expectations are higher. We're asking you to put a little more effort into your writing. . . . You are asked to look at your sentences, your main ideas, and details" A few minutes later, she counseled them as writers with a purpose: "You're trying to get the best piece of writing . . . so don't feel too sad when you have to cross out." Dhyan asked her third graders to look through their writing folders, "use those editor eyes on your own writing . . . and then we're going to talk about what we crossed out and give a reason why." Dhyan surveyed the class and noticed some restlessness, so she said, "I'm going to put on some quiet music to calm things down. Remember, some writers need quiet." Dhyan circulated, coaching individual students until it was time for a closing meeting to share revisions.

After class, Dhyan and I recalled with pleasure how many students seemed to inhabit the role of writer pretty comfortably. During this conversation Dhyan noted, “When it came to revising their own work, it seemed to be a struggle . . . because there was some resistance to crossing out.” She commented on the relationship between the writing process and her focus on effort: “I think the idea of the time and effort thing applies to all writing stages. You put time and effort into creating a piece of writing and then you put time and effort into making it better.”

Dhyan’s active thinking about fostering awareness of the learning process influenced her interactions with individual students throughout the fall. She wrote a response to Camilla’s learning log entry about an upcoming audition, which Camilla had ended with: “Wish me luck.” Dhyan wrote “Good Luck” and then she paused and thought about all the steps Camilla wrote about (“I was four [when I] I did this and when I was five I practiced that”). Dhyan said to herself, “No, it is not just luck,” and she added another sentence for Camilla to read. “You don’t really need luck if you have been practicing that hard!”

In addition to written messages, Dhyan found verbal opportunities, usually on the fly, to guide her students’ understanding about investing time and effort. She described a moment with Tina, a third grader who often says, “I don’t get it” before even trying the work.

Tina was working on some math problem . . . and she wasn’t even reading the sentence properly to figure out what the question was asking. So I had her read it again. . . . She read it out loud and finally got the question and said, “But I don’t know how to do it.”

Dhyan sent Tina back to her desk to spend some time on the problem. In a few minutes, Tina was back asking whether her answer was right. It was indeed correct and

Dhyan asked, “What did it take from you to get it right?” Tina said, “Doing math,” and then noticed that Dhyan was waiting for more. “Oh, yeah. Time,” she said, and grinned as she looked up at the Time + Effort poster on the wall. Dhyan remembered it as a “sweet moment” and compared her interaction with Tina to what she imagined her response would have been a year ago. She surmised that she would have affirmed that the math answer was correct and would have said something like, “OK, you got it. Good. Now off you go.”

Not every moment of fostering greater effort and awareness of learning ends with a smile like Tina’s. Some interactions with individual students leave Dhyan feeling dissatisfied. In one instance, Dhyan coached Elaine to work more on her poetry. “I think it was her haiku and it was a little bit of a struggle. . . . We sat down together and we came up with something she liked.” The next day, Elaine worked on a cinquain. Dhyan saw the first draft and coached her, “Okay, now you can spend some time improving on it . . . make it sound more poetic . . . make the reader feel like they are there in the poem.” Elaine wasn’t interested, “No, I like it the way it is. I’m happy.”

Other students aren’t as happy as Elaine about their products but they aren’t yet able to put in the time and effort that it would take to improve. For example, Dhyan and her assistant have worked steadily with Charles, whose anxiety makes it hard for him to make progress. Often he isn’t able to sustain effort over time because he gets focused on just getting something finished. Dhyan wishes that “the message somehow got to him that it’s not just about being able to do something. The whole thing is a learning process.” She imagines that perhaps his anxiety level wouldn’t be so high if he could hear what she wants him to understand: “Open your mind to it . . . and even if you don’t get the answers, you’re trying, you’re working through it and people are here to help you learn.”

Dhyan sighed and acknowledged that although Charles would benefit from a better understanding of what it takes to learn, “it is a long-term goal. . . . It is not supposed to end here; it’s supposed to begin here.” She knows that, for Charles, learning is a struggle every day.

Whether or not her students were able to use her coaching about the value of putting time and effort into learning, Dhyan kept sending her messages throughout the fall semester. Verbally, in writing, and through modeling, her third graders experienced repeated encouragements to make effective effort and to become self-aware about the difference their time and effort might make in their learning. Dhyan and I wondered to what extent the understanding she hoped to foster was sinking in.

Listening to Student Ideas about Learning, Looking at Learning Logs

In January, I joined Dhyan and her students for a class meeting about learning and then stayed after school to read through several students’ learning logs. We hoped to understand how Dhyan’s messages about time and effort might be influencing her third graders. She admitted that her early intentions about *weekly* entries in the logs had not been realized. “A little ambitious on my part?” she questioned with chuckle. Instead, entries happened every few weeks. The pressure to cover the district curriculum weighed on Dhyan and she noted the irony of her own struggle to build in the time and make the effort to develop student awareness of the learning process. Nonetheless, she asserted, “We are talking about this more than ever.” Although there were fewer log entries than she had hoped, the conversations about learning seemed to have gained in importance and frequency as the year progressed.

This January class meeting was structured so that students began by recalling their first entries in the learning logs. Then they proceeded to discuss their own learning at times when it was hard and at other times when it was easy. Many students could easily recall the topic of their first entry more than three months earlier and everyone remembered the poster that said $\text{Time} + \text{Effort} = \text{Learning}$. The second poster, *Struggling?*, was harder for them to recall but many seemed to have remembered it. In a general discussion about what it takes to learn something, Dhyana and I noticed that some students tended to give answers that seemed compliant, such as “be quiet, concentrate, talk less, listen more, be a good student.”

Later, Dhyana commented on the compliant comments and wondered about her students “doing what the teacher wants” rather than really exploring and thinking about what it takes to learn something. Referring to the kind of messages she has been trying to convey to them, Dhyana expressed both her desire and her curiosity about what her students are internalizing. “I want to pass on these messages and have them really believe, not just spout back. . . . I wonder what they are taking with them.”

Other students, however, focused more on the learning process. Jenny, for example, spoke up in the meeting with clear conviction in her voice:

Learning takes time *and* effort. You could have a tough math question and sit there for a hundred years so you could take the time but not put in the effort so you don't learn it. Or if you put in a lot of effort but do it fast and [do] not spend any more time on it, you're not going to learn it either. So you have to put in time and effort.

Joshua chimed in with his story of becoming a good reader. He began by saying that he used to be a poor reader, when a fellow student interrupted him and stated in an eager tone, “You're one of the best readers in the class!” Joshua inclined his head in a modest gesture and grinned. He continued his account by tracing his progress since

kindergarten “when I couldn’t read at all—I could just do mazes” and then described his hard work with “little books,” and the extra help in school and at home with his grandmother. Joshua concluded his story in a proud tone: “Now I read chapter books.” Indeed, Dhyan told me later, Joshua recommends books to other students and gets them reading.

Listening to these students, Dhyan and I got the sense that many had a beginning sense of learning as a personal process that requires their investment. We turned to the learning logs to find out more about their level of awareness, and before we began to read them we recalled Dhyan’s comment to me in September, just after she had introduced the logs:

I have no idea where it will go and what the kids will come up with in their learning logs so I’m going to be very curious to read them and see the vocabulary they use and what their thoughts are on what they are learning . . . and how they are learning and if they are internalizing more. In January, it might be a good time to see if there is a difference between the first entries.

Dhyan selected logs from four students, each of whom is a different kind of learner in terms of academic success and level of reflectivity. One by one we read them through; from these four students we gained some interesting perspectives on Dhyan’s messages. Some of our discoveries confirmed Dhyan’s earlier impressions and some things were surprising. Furthermore, Dhyan felt that the entries had validity because, she observed, what her students wrote “came out naturally.” They did not seem to be “spouting back.”

The most striking realization from our examination of logs reinforced something that Dhyan had become increasingly aware of through the first half of the year. The less successful students seemed to be more perceptive about the learning process than the

more successful students for whom learning seems effortless. Jocelyn, for example, had some difficulty in several of her subjects and she was not a fluent writer. Her entries documented her ongoing recognition that she could make progress on “hard” things. For example, “I am learning how to chart the sun. It was hard but now it is getting easier.” A sentence from another entry about science read, “At first it didn’t make sense, then I understood.” As we worked slowly through Jocelyn’s log, Dhyan expressed some surprise because she hadn’t considered Jocelyn to be a very reflective learner and now, she confessed, “I’m having doubts about that!” Dhyan realized that although the writing was spare and unpolished, Jocelyn paid attention to the evolution of her learning and made an attempt to write about it.

A sense of knowing what it takes to learn was also evident in Greg’s log. His writing is so labored that his thoughts are often scribed by Dhyan or a teaching assistant. Dhyan commented on his entries, “He knows what it is that causes him difficulties. Then there are steps that he’s taken to help himself with those difficulties.” An early January entry captured Greg’s sense of the constant effort he needed to keep learning:

My new year’s resolution is to work harder on my work. I get distracted by the goldfish. So I’ll try not to look at them until my work is finished. I will not get distracted by the stuff in my desk.

The writing of these two students, for whom learning is sometimes a struggle, revealed a beginning sense of learning as a process and a glimpse into their own belief that they may have the capacity to make efforts to succeed.

Apart from the initial September writing, log entries from students who were more academically successful rarely mentioned aspects of the learning process or documented their efforts. For example, Jenny’s opening entry was focused on the relationship of effort to success in soccer, yet none of her subsequent entries addressed

the theme of Time + Effort = Learning. She certainly hadn't forgotten that understanding; she was the student who articulated the concept so succinctly in the January class meeting! However, she used her fluent writing skill to document *what* she was learning but didn't mention *how* the learning occurred.

The most academically successful student of the group, Shoshanna, used her log entries to report all the things she was learning, often joyously. In one case, she did write about something that was confusing, and then she commented, "Finally, I understood. Oh this is how you do it, I would think with proudness."

One commonality we noticed in the entries of these two successful students is their confident tone about learning; it simply doesn't seem to occur to them that they might not be able to do it. Dhyan mused about the differences between the two sets of students and commented,

I'm finding that some of these kids who really do struggle are able to articulate it better. They see it each day . . . they are being pulled out, put in small groups, and given extra assignments here and there. I think for them it is very clear that they have to put in this extra effort.

The more successful students who find most work effortless, like Shoshanna, pose a different challenge to her as a teacher. Dhyan wonders how to get through to them that some day they may need to exert more time and effort to learn something difficult.

An Emerging Shift in Role: Guiding Students Toward Awareness of Learning

Dhyan's convictions about learning inform her sense of her role as a teacher. She has become convinced that awareness of oneself as a learner can improve learning, so she has made some shifts in the way she guides her students. This increased appreciation of self-awareness builds on Dhyan's beliefs about learning, already shaped by her family background and her own development as a learner in school. Dhyan's parents were

influential because of their high esteem for education, evident in their support for Dhyana's schooling as well as that of her sister, now a graduate student in California. Dhyana credits her parents with "consistent, hard work" that enabled them to make a life for themselves and their daughters and then to retire comfortably in Florida across the street from relatives. Dhyana's own consistent hard work through several challenging school environments also contributed to her belief in the power of effort in learning.

The kind of effort that Dhyana undertook and asks from her students is best captured in a word she often uses: *struggle*.

The whole learning process is about struggle because your mind is trying to understand different things and kind of piece it together and then develop this new understanding of something. . . . It's not a passive thing. It's a struggle in the sense that it's active . . . you know something is happening and you need to work at it. It has this connotation of despair and frustration but I don't particularly see it as that. . . . It is just something that doesn't come easy or spontaneous. . . . Sometimes people are frustrated with it and other times it is a happy learning thing where you're enjoying something that's happening in your mind and you're trying to piece it together.

Although she defines struggle as not always painful, Dhyana admits that when she was in the British school, "there was a lot of pain involved with it . . . and emotionally I became very unsettled." I surmise that her self-proclaimed "soft spot" for students who find learning a discouraging struggle is rooted in moments of pressure in the Chinese school, bewilderment in the British school, alienation in the Texas environment, and disconnection in her early years in the United States. Whether the experience of learning is hard, frustrating, or happy, Dhyana thinks of it as an active struggle that is necessary to growth. "It is important to do one's best, as it is only then, when there is some struggle, that real learning takes place." Her parents' message and example and most of her own learning experience tell her this is true.

In words and bearing, Dhyan gives the impression of a serene, reflective, self-aware young woman; there is little outward indication of struggle. Yet struggle is part of her ongoing cultivation of self-awareness. She reports that her understanding about learning as struggle comes from “more than just my experience as a learner in school,” and she cites her current practice of daily meditation. “I spend time meditating,” Dhyan explained, “and part of it is a struggle because you’re supposed to still the mind and the mind doesn’t want to be still. A message that I keep with myself is: ‘Struggle through it.’”

Dhyan’s conviction that increased awareness and effort have helped her learn and grow contributes to her belief that, as a teacher, she must help her students develop self-awareness and willingness to struggle actively in the learning process. The context of her teaching situation both supports and hinders her efforts in this regard. On the one hand, she sees her principal as encouraging and appreciative: “I am fortunate enough to have a principal who values the same kind of principles as I do.” On the other hand, there are district and state pressures that compromise the time needed to teach in depth. Dhyan explains that tension:

The state, the city, have come up with their sets of expectations about the things the kids need to master before leaving your grade. . . . Okay, I want my kids to walk out of here with those skills. . . . But the side of me, the personality that I am, would not necessarily spend *so* much time on some of the skills *they* think necessary.

She continues by explaining that she would prefer to spend more time “creating that atmosphere of learning” that engages students in becoming more aware of what it takes to learn the material at hand. Dhyan makes a balance between what the external authority wants her to do (and which she accepts as her job) and her own personal authority and judgment of what is best for students.

Although she is a little disappointed that learning logs and larger discussions about learning have sometimes taken a back seat to “getting the work done,” Dhyan is making several efforts to encourage her students to become self-directed, reflective learners, aware of their own process and of what it takes to learn something. She is more conscious of putting her students in charge of their learning and she uses informal conversations to guide them. In the writing lesson described earlier, for example, Dhyan placed her students at the center of their learning when she referred to them as “writers,” and as having “editor’s eyes.” Dhyan explained her vision of self-directed learners in words that she would say to a student:

Your role in this classroom is to be a learner . . . you don’t need to be rewarded for it and I don’t need to punish you if you make mistakes. . . . If I walked out of the room for a minute, I could trust that you were doing what you were supposed to do.

Dhyan hopes that her students will use her guidance to become self-aware and take greater responsibility for their own learning.

Reflecting on the shift in her practice, Dhyan acknowledged that her recent focus on awareness of learning could not have happened in her first couple of years as a teacher. “I couldn’t even absorb or develop something like this. . . . I would take stacks of work home. . . . I just felt overwhelmed.” Then, during the Studying Skillful Teaching course, she began to incorporate the cultivation of awareness of effort into her practice in very direct ways. Now in her fifth year, she has made this a priority even though she recognizes that, ironically, “sometimes it is a struggle to find time for it.” As she has moved this new priority forward, she has become aware of changes in her messages and her stance as a teacher since she first introduced $\text{Time} + \text{Effort} = \text{Learning}$ to students.

Before, I was trying to convert the students’ thinking by telling them overtly what effort and time can do. But now it seems to naturally flow

into our conversations and into daily working lives. . . . I'm now asking them questions that will help them become more self-aware of their learning process . . . asking them what they are doing with their time; asking them about the effort they are putting into their work. . . . With Jimmy, for example, he was sitting there, gazing into the reading area, but not working at the task at hand. Rather than command him in a teacher-like tone to get back to work, I asked him what he was doing with his time. It took him a little while before he realized the message and got back to work, but he did it with a knowing smile.

Dhyan's reflective nature leads her to make comparisons between past and present thinking and actions. She characterized her understanding and approach before taking *Studying Skillful Teaching* as "not having clear thoughts in my mind" about the kind of messages to give her students to help them make the necessary effort. She speculates that without the insight she gained, she might have regarded her student Alan "as a difficult child who was just lazy." She imagined herself thinking, "Why couldn't he put in more effort?" But once she started working with him, she realized that he might not even be aware of his own approach to learning and that she needed to "steer him to think a little bit about what he was doing with his time."

Dhyan's work with Alan last year, and with all her students since then, has been informed by a deeper conviction that they will be well served by a greater awareness of learning as a process involving struggle. From her point of view, taking time and making an effort are the elements of that struggle that will likely result in learning. Dhyan articulates several reasons why this particular concept, out of the whole professional development course, seems to have had an enduring impact on her thinking and practice. Dhyan highlights the connection to her own experience as a learner first: "It's where I come from as a person . . . it strikes a chord and it makes sense." The second reason is empirical. She found that after she tried to help students like Alan become more aware,

“there was almost an immediate connection . . . and it made me want to pursue it more.... I was trying it out and there were results.” Finally, she referred to her career stage. In the first few years, she couldn’t imagine thinking about this aspect of learning because she simply felt overwhelmed by the cultural shift and the logistical demands of teaching. As she became more competent at the myriad tasks of teaching, she was able to attend to the quality of her students’ learning processes and to think about how to guide them.

Interpretive Reflection

Dhyan offers an articulate analysis of what endured from her professional learning and why it was important to her. Most striking is the link between her history as a learner and her realization of what she wanted to change in her pedagogy. Through the medium of the course, she identified her personal experience of struggle and success, relating it to the beliefs she held about learning. That introspection about the time she “took control of learning” led to a decision to try some strategies with her third graders, starting with Alan.

Dhyan wanted to put her beliefs into action in a new way. Through our joint research Dhyan kept experimenting, reflecting, and exploring ways to foster her students’ awareness of the learning process and the power of their own effort. Self-awareness had helped Dhyan understand how to survive and then thrive as a learner. Now, as a teacher, she wanted to impart to her students that same understanding of the value of self-awareness.

In my visits to Dhyan’s classes and in my conversations with her, there were many instances of her progressive change in action. From the initial introduction of the learning logs to the coaching questions about how a student was using time, Dhyan

intentionally infused her teaching with messages designed to foster a greater awareness of learning as a process that requires time and effort. Our experience analyzing the students' conversations and writing gave us many signs that a dawning awareness was growing among students in the class, particularly among those for whom learning was sometimes a struggle.

Dhyan's own struggles through the Chinese school, the British school, and the state university in Texas made for a fairly unhappy experience of schooling. Her choice of teaching would likely be considered unusual by Lortie (1975) and Huberman (1993), whose research shows that a relatively small percentage of teachers chose the profession when they had had a poor experience of school. However, her job as an assistant in the Canadian International School of Hong Kong and the more self-directed, reflective learning in the Tufts master's of education program, moved Dhyan toward a commitment to teach. Such a move seems to have been motivated, in part, by a desire to do better by her students than her teachers had done to her. Again, this is rare among teachers, but not without precedent when one thinks of teachers who have a sense of mission, like Ashton-Warner (1963), Kaufman (1965), and Kozol (2001).

Dhyan's mission may have been inspired by her own difficulties in school, but her role as a teacher was supported by her family and cultural background. Formative in her frame of reference were the stories of her father's lack of schooling and her parents' sacrifices for her education. Dhyan's family and cultural milieu valued learning and she was expected to work hard to get a good education, no matter what cultural or academic hurdles she encountered. This aspect of her background is in keeping with Lortie's (1975) finding that many teachers have parents who did not complete college but still supported their children's education, even at a cost to themselves. The influences of family and

culture shaped Dhyan's frame of reference, especially her belief in education and her belief in the role of effort. The school experience turned out to be a refining fire from which Dhyan emerged with beliefs in the importance of teaching and learning that were consistent with that of her family, the culture she grew up in, and the cultural environment where she came to teach. When these underlying influences intersected with elements of Studying Skillful Teaching, Dhyan created new knowledge and learning.

Dhyan pointed out that she could not have attended to deeper issues of the learning process during her first years of teaching because she felt "overwhelmed" by the sheer logistics of teaching a core curriculum and managing a classroom. Her comment echoes the research on career stages in teaching that describes the first year or two as a period of survival and discovery (Fuller, 1969; Huberman, 1993; Loucks-Horsley, 1987). Although Dhyan's initial period of teaching was typical of many beginning teachers, she appears to be quite advanced by her fourth and fifth years. Fuller, Huberman, and Loucks-Horsley and Stiegelbauer describe a progression in which the teacher moves out of survival mode after the first few years and then stays focused on *practice* for several more years, in the interest of developing mastery. The more mature stage, characterized by greater attention to the "impact on student learning" (Huberman, 1993) or the "consequences" of teaching (Loucks-Horsley & Stiegelbauer, 1991), tends to evolve after a sense of mastery is established. Dhyan's evolution appears to be more accelerated than these research formulations. Our joint research project showed her to be squarely focused on empowering the student as learner and expanding her own role to include coaching and guiding awareness of the learning process. For example, this is evident in her reflection about her interaction with Jimmy: "Rather than command him in a teacher-like tone to get back to work, I asked him what he was doing with his time." She was able to

simply mention “time” because she had explicitly built a foundation of shared conceptual vocabulary and expectations about learning with her students. Dhyān’s capacity to focus on student learning was emerging as she participated in the course, and it grew during the duration of the research project.

Dhyān’s pedagogical changes involved a significant shift in her role as a teacher, which seemed to be quite evolved for her relatively few years of experience. However, this evolution is not as surprising if the apparent level of her development as an adult is considered (even though she is in her late 20s). From our earliest conversations in the course and through our research together, Dhyān demonstrated a capacity to take in multiple perspectives and still retain her own sense of personal authority. I suspect that the cultural “shocks” she lived through, coupled with her tendency to be reflective, expanded her perspective as she deepened a core sense of self. Loevinger’s (1976) milestone of *conscientious conformist* and the state of *constructed knowing* described in the progression of development by Belenky et al. (1986) come to mind when Dhyān describes the balance she feels she must strike. She strives for a dynamic equilibrium between what she would prefer to teach students (“creating that atmosphere of learning”) and what she knows she must teach as part of her job with the district. Dhyān’s perception of herself as an adult in the world of teaching could also be characterized as just arriving in the fourth order of mind—*Institutional*—in Kegan’s schema (Kegan 1982, 1994). Dhyān exemplifies this description of development as she proceeds with conviction about her own authority as a decision maker in her classroom and in the larger context of her affiliation with the institution of Carter School and its district.

Carter School itself was a context that largely supported Dhyān in doing the kind of teaching that she envisioned. She found that her principal shared her values and

supported her in being a reflective and autonomous teacher. In the spirit of furthering Dhyan's active learning, the principal had suggested that she sign up for this professional development course, which was sponsored and financed by the district. Although Dhyan was a bit discouraged about the lack of teamwork among grade three teachers during her fourth year, in her fifth year a new grade-level colleague arrived who provided her the opportunity for professional collaboration that spurred her learning and strengthened her teaching. Like many other teachers, Dhyan decried the pressure to cover curriculum and to prepare students for state testing, yet this reality did not override her desire to make fundamental qualitative changes in her practice. Along with her own sure sense of herself as the leader of the learning in her classroom, the supportive school context set favorable conditions for her pursuit of professional learning that allowed her to renew her commitment to involve students more consciously in their own learning process.

Dhyan's continuous self-assessment and contemplation exemplify the kind of "reflective practitioner" described by Fullan (1993) and other reform-based theorists (Little & McLaughlin, 1993; Schön, 1991; Stanley, 1999; Zeichner & Gore, 1990). Furthermore, her story illustrates a key principle of adult learning, first articulated by Knowles (1980). She actively brought her personal experience and prior knowledge to bear on a problem of immediate concern, a student whom she chose for a case study during *Studying Skillful Teaching*. Using the case study structure and readings on the research about expectations in combination with her past experience, Dhyan was able to reflect on her teaching practice and try some different approaches with the intention of influencing the child's learning. Her own learning didn't stop there, though. Encouraged by the results she saw, Dhyan continued to try new strategies with him after the course was over and she made plans to begin the next year differently.

During her fifth year of teaching and our research together, Dhyana continued to deepen her awareness of a recursive interaction between knowledge, beliefs, and action. This engagement changed her perspective on her students' learning and her own role as she tried new approaches with all her students. Her comments reveal the way her own metacognition shifted her perspective, in turn influencing her action. She believed that her students' spontaneous creation of a learning web would not have happened the previous year because "I wasn't thinking about it [the learning process] actively enough." The changes Dhyana experienced suggest some of the signs of transformative learning Kegan describes (Kegan, 2000). They were not merely additions to an existing frame of reference. Instead, Dhyana's angle of view on her students' learning and her own stance and role as a teacher widened. The changes Dhyana worked hard to achieve reveal her active use of her own experience and beliefs to inform her actions to empower her students as learners.

Dhyana's history, concerns, and actions bring life to Nieto's statement that "teachers bring their entire autobiographies with them" (2003, p. 24). Her powerful frame of reference also illustrates Kennedy's (1999) observation that teachers draw on these frames of reference in their observation of learning and their decision making about teaching. What seems to have been particularly significant for Dhyana's course learning was the opportunity to make her own past experience and beliefs more conscious, coupled with the expectation that she would let new insights influence her pedagogical decisions.

Wanda Dunbarton: Raising the Bar; Providing Support

By the end of the first session of Studying Skillful Teaching, Wanda Dunbarton told me that she was working toward certification by the National Board for Professional Teaching Standards; she hoped for a useful overlap between the work in the course and the demands of the certification process. A veteran teacher of children with special needs, Wanda enjoyed the collegial interaction in the course and sought out different perspectives among the 30 teachers who participated. She commented that the course “helped me conceptualize some of the things that I was doing.”

Two years later, when I sent out letters to former course participants inquiring about their possible involvement in my research study, Wanda was the first to reply. She felt that the course had raised her level of awareness about the power of expectations on student performance. Wanda wondered how her messages about expectations were coming across to students and hoped that the research project would give her some perspective.

In early September 2003, when I came to Longwood School to begin our work, Wanda had already decided that we should focus on her teaching of first graders with special needs. After the initial interview, we chose a follow-up time for me to visit when Wanda was scheduled to work in tutorial sessions with two boys and then support one of them, Timothy, in his class.

I arrived back at Longwood a few weeks later. I observed Wanda in two contexts; first, in the tutorial space where Wanda was teaching, and later in a first grade

classroom where Wanda assisted her student in a group. In the tutorial space Wanda's dark eyes sparkled as she worked with the boys sitting at the table. Their heads lifted to follow her hand as she pointed to a poster on the wall that said: "Look and Listen. Work Hard. Help Each Other." She took out a small chart of foil stars and praised the boys: "Here are some stars. . . . I'm proud that you used your brain . . . You helped each other, and you worked hard. Those are the things I was looking for today." Timothy grinned at Juan and said, in a burst of generosity, "You can have my stars today." As they left their tutorial session, Juan claimed that it was *his* turn to shut out the lights in the room. Wanda gave me a look as if to say, "This is something we go through at the end of every session!" and she accompanied them down the hall to the first grade wing.

Next we spent time in Timothy's first grade classroom, where Wanda assists for an hour four days a week helping him apply some rudimentary reading and writing skills to his class work. The classroom teacher had introduced a writing project to produce a class book about Halloween safety. Each student was expected to contribute a page of writing with an illustration. Wanda knelt by Timothy's desk and looked at the paper in front of him where he had written his name. "You're being very careful today. I'm glad to see that," she said to him and gave him some clues about the letters for his first word. Within a minute, Timothy wanted to sharpen his pencil. Wanda assented and turned to coach some other students. When he returned, she refocused her attention on him, "You have your first word all done. What do you have to do next?" The work continued in a similar manner for another three quarters of an hour, during which Timothy took various trips to sharpen his pencil, go to the bathroom, visit with a friend, or find another color for his drawing. Each time he returned, Wanda refocused him on his work. She first asked him to reread what he had written and then waited as he tried

the next letter. He would study her face, hoping for a hint. Sometimes she would offer a cue; at other times, she would say, "Oh I'm not going to tell you that one; you know it." Timothy finished his sentence, gave a sigh of relief, and turned to his drawing. He glanced at Charlotte, the girl at the next desk, and crowed, "You're not even done?"

We sat down in Wanda's office a little while later. She smoothed her trim white hair and sighed as we talked about her work with Timothy. "First," she said with a rueful smile, "What happened to my provisioning? I should have had ten pencils, sharpened, at the ready!" Then she voiced some concerns about Timothy and her role: "I feel a bit frustrated that I was there for 50 minutes and he only produced six words... I was constantly thinking about how much information to give him and how much to have him do on his own." His letter recognition problems were serious; from the morning tutorial session, she knew that he had forgotten several letters. As she reflected on her own role during the writing session, she said, "It was fair. I wish I had tried to get him to write a little more."

Wanda's own expectations for herself began in childhood. They offer some clues as to why the course helped create a turning point in her awareness of the influence of expectations on her role as a teacher.

Being with Children: A Sense of Family

As a 30-year veteran teacher working with students who have special needs, Wanda has a calling, energized by her love for children. She explained that because she never had children of her own, being close to students was especially important to her. "I love being with the kids. They make me laugh . . . they're so funny. And everything's exciting to them. They are very straightforward. . . . They don't jerk you around." She

glowed when Timothy referred to her as “my best teacher,” and worried when he seemed to withdraw from her and became unwilling to work. Wanda believes that a strong relationship with her students boosts their motivation and benefits their learning: “Then they know that they are worth it [and] important to me, and if I care that much, they will too.” She refers to it as a “social fabric” that needs steady time working together to stay intact. If the time and contact isn’t regularly available, she explains, the lack of consistency and dependability weakens the connection and then the students “just don’t invest themselves in the relationship. That’s the part that’s hard for me.” She recalled that when she and Timothy completed a substantive project together, “it made a big difference in our relationship,” and she vowed to do more project work. The project they completed together went home in Timothy’s backpack along with the daily communication book that Wanda keeps with his parents. Her investment in a strong relationship with her students extends to an active partnership with their families.

From Wanda’s point of view, teaching and families go together. After going to college, she became a teacher mainly because it was what people in her family valued and did. A sister, an aunt, a nephew, a niece, and some cousins are all teachers who have worked in towns near Wanda’s current school district. Wanda nodded her head toward the southwest as she said, “I grew up in the next town over. . . . There were seven or eight dairy farms. There were only 90 kids in my high school graduating class and I married my high school sweetheart. . . . It was a very safe environment.” Her father had hoped to become a history teacher, but when the Depression hit, he ended up selling shoes for a while. Eventually, he set up his own business as a painting contractor; Wanda’s mother kept the books. Wanda described her parents’ high regard for education: “They made us feel like we were really smart and they expected us to go

to college. They expected us to do something productive with our lives. They expected us to be academic types.”

A Desire for Challenge

Wanda relayed the family story of her own start in school at age five and her mother’s pride:

Although I was young for my grade level, my mom was in tears because I ran right into my room and sat down at my desk. The teacher asked us to draw a red apple and I said, “Gee, this is way too easy. When are you going to start teaching me how to *read* here?”

Wanda relishes the challenge of learning something new and describes what is important to her, in terms that portray a self-directed, hard-working nature.

I like to teach myself things. . . . What’s important to me is the outcome. I want whatever I learn . . . to be effective. Sometimes I get down if something doesn’t come out the way I want it to come out. . . . And I’ll go back and I’ll keep trying until it does work. But when something works really well, that’s my reward.

In fact, when Wanda was about 40, teaching itself was not going the way she wanted. The decline in respect for teachers and the budget cuts in education prompted her to take on a new challenge. She took a leave of absence, completed a master’s degree in technical writing, and landed a job in a nonprofit company that employed her new skills. She recalls, “It was interesting for about six months and then it got really boring. I started to miss the kids and I began to realize I’d rather be a teacher.”

The desire for challenge drew Wanda back into teaching, “refreshed and reloaded and ready to go again.” Thinking back on that transition, she recalled, “I missed that challenge [of teaching]. I can’t think of anything harder to do. . . It is really hard to analyze what kids do and what that means.” The intellectual, emotional, and neurological dimensions of teaching children with special needs make her job one of

“trying to put the pieces all together.” As Wanda discussed her career and her views of her own learning, she laughed and exclaimed, “I seem not to be able to *not* challenge myself! . . . [self-challenging] is a good thing and a bad thing because it can drive you nuts.” But she went on to assert, “If you’re going to grow professionally, you’ve got to work at it.” Indeed, 10 years after she returned to teaching, she began a year-long process of National Board certification and completed it in 2002.

Wanda’s time is now divided between teaching and administration because she recently took a half-time position as assistant principal and Individualized Education Program (IEP) chairperson in her elementary school. It is a frustrating job, she says, and certainly not as satisfying as teaching children directly. She still has a small caseload of kindergartners and first graders, but she finds that the administrative part of her work drains her energy and draws her away from her students at inconvenient times. Nonetheless, she is committed to continuing her work with students like Timothy. He is one of Wanda’s most challenging students because he is now seven and still does not have a firm grip on the alphabetic code. “But we’re doing work every day, so—gradually, slowly—he acquires more letters.”

Wanda described a new idea that she and a colleague had devised to help Timothy make a stronger link between a letter shape and a sound. She affirmed, “I’ll do anything I can to make that connection for him.” Her comments about the work she does with Timothy and her other students illustrate a desire that has become even more important to Wanda’s teaching and her own learning: “I want to see where I can go with the kids and see where they can go if they have high expectations.”

The Influence of the Course: Reconsidering Expectations

Wanda claims that participating in *Studying Skillful Teaching* pushed her to reconsider her own beliefs in students' capacity to learn. The course requires participants to examine their assumptions about intelligence and to explore the possibilities of an effort-centered approach to achievement.¹ Teachers in the course read articles about the research on beliefs and achievement; they discuss the influence of teacher expectations on student learning. Wanda was an avid participant in the collegial discourse.

Little did I know during the course how much our discussions about beliefs and expectations had affected Wanda. Two years later, in our first interview for the study, I asked her to recall generally what she remembered from the course. Then I offered her a list of course topics to review. Wanda glanced down the list and made comments. Suddenly, she paused and her tone became more emotionally charged. Referring to the item "ability-centered versus effort-centered beliefs," she said, "Oh, this was huge for me. This was huge." In a somewhat confessional tone, Wanda said she realized that her perception of her students' measured "ability level" had influenced her to set limits on their learning. "I know the IQ scores, I know all the test scores, and there's a danger in knowing." A voice in her head would sometimes say, "Oh, this is too hard for him. I'm not going to give it to him." Wanda admitted to an emotional struggle during the course: "I felt like I really made a bad mistake. . . . I was thinking of all the kids I didn't give things to and maybe they could have done it!" She continued, "I was almost shortchanging them because I thought they were not going to be able to do anything." In

¹ See the course description in Appendix A.

the course, Wanda reflected on the ways her words and actions communicated her expectations and realized a need for change.

I have learned that I should make the assumption that my students can do everything and let them prove me wrong, rather than the other way around. Now I give messages like, “I know you can do this; we’ll keep working on it until you can get it.” I never used to say that and now I say it a lot. I think that communicating high expectations and a belief in effort is important because if my students and I don’t have the highest expectations, less learning will occur.

But it is not easy to get the right balance. Wanda described her ongoing dilemma: “I think it’s really hard to tell how much I should push and how much I should help. On the one hand,” she said, “I’m so afraid that I’m going to give too much support and that’s going to give them the message that they can’t do it by themselves.” On the other hand, she admitted, “I’m very nervous that I’m going to ask them to do something that’s so hard that they just get really frustrated and they give up.” Wanda believed that in the past, she had given too much support and not enough challenge. She made a conscious decision to change that part of her practice as a result of having taken the course. For our study, Wanda chose to look at how her changed thinking about the power of higher expectations has had an enduring impact on her teaching. In particular, she wanted to get some evidence of how she expressed belief in effort and her confidence in her students’ capacity to achieve.

Putting Expectations into Words

“One of the things I would have said [to a student] three years ago is, ‘Oh, I know that’s hard. I’ll help you.’” Wanda mocked herself using a sweet tone. “I don’t do that any more. That’s the main thing. . . . I say, ‘Okay, what are you working on, what’s next?’” Her businesslike tone returned and she laughed.

“I’ve become a lot less, uh, hovering than I used to be. I used to do everything for the kids; I used to hand them everything.” Now Wanda teaches her students how to get their own materials and follow routines for the beginning of tutorial sessions. “After a few weeks, I say, ‘I’m not going to tell you what to do. You should know how to do that by now.’” The beginning of a lesson now includes a more conscious communication of the daily “itinerary” and the specific objectives for learning. This is important, Wanda explained,

because I don’t think my kids understand why I ask them to do things. And so when I do the itinerary, I also say, “Why do you think we’re going to do this today? What do you think you will know at the end of it?” . . . At the end of the period, I say, “How did we do here? Let’s go back and check to see if we did everything.”

After describing this new level of attention to communicating her expectations to students, Wanda reflected, “I had never done that much before because I just thought they wouldn’t understand, I guess. And then when I started to do that, I think it really did help focus their learning.”

Wanda’s attempts to put higher expectations into action are also evident in the words she uses about effort. Referring to her work with Timothy, she commented,

It is very hard to stay positive about my own effectiveness when all the children I teach seem to need more instruction and practice to reach mastery, yet I don’t want to let myself off the hook, so to speak, by reducing *my* expectations. This is just an ongoing struggle I have. I hope by explicitly talking to him about effort and attention that it will boost both of us up!

She recalled a day in the first grade classroom when she was speaking to a student who sat near Timothy about the importance of effort. “Timothy was all ears. He didn’t say anything but he was intent on listening to what I said and was nodding in agreement.” Indeed, when I visited Timothy’s tutorial session and his first grade classroom, the

messages about high expectations and effort were clear. The poster in Wanda's tutorial space was a constant reminder. Her responses to student answers and work were peppered with messages about her expectations, such as, "I want you to try it. You can do this."

Raising the Bar: The Book Project

Despite her frequent tutorials and classroom support coupled with her conscious messages about effort and expectations, Wanda was discouraged by Timothy's lack of progress by the end of October 2003. "He's having so much trouble with the [alphabetic] code but he really is a smart boy. . . . The only strategy he has now is meaning because he can't do the coding." Timothy uses meaning to guess at words, she explained: "He never makes mistakes that don't make sense." Wanda decided to move her own effort to hold high expectations for Timothy to a new level: she raised the bar and involved him in more challenging work. Wanda wrote me an e-mail message about her decision to integrate the painstaking work on individual words into a larger project:

I took a left turn and suggested we make a book during the tutorials for a few days. We started writing a book about his puppy. . . . I brought him to the library to show him that once we published the book, the librarian would give us a circulation card and pocket. Timothy was very enthused, saying he would sell lots of copies of it and be rich and famous, and that his brother could take the book from the library. . . . It's not that I'm going to abandon the other letter and word work we do, but now I'll have his words to use for the lessons, and I hope that will make it more real for him.

In just a few days of tutorial sessions, Timothy produced a six-page book of 50 words in compound sentences. Wanda reported that she was thrilled and that Timothy was proud. After the first two days of writing, Wanda entered the first few pages into

the computer and printed them out so he could see it in a book format. She was particularly pleased that Timothy wrote compound sentences. “We said the sentence a couple of times and then he really just took it word by word. He was able to hold the idea and the sentence in his memory.” Wanda reflected, “It was a learning thing for me because I was still trying to find out how far I could go with him and how much he could do.” In the course of writing his story, there were moments when Timothy lost energy for the project and claimed that he didn’t want to do it any more. Wanda stuck with it, read aloud what he had written so far, prompted him about the ideas he had for the rest of the story, and they kept on going.

When the story was finished, it was formatted on computer and several copies were printed. Timothy began to illustrate the copies and enlisted Wanda to help color the illustrations. Wanda relayed his words to me. “I’m going to be famous,” said Timothy. “I’m going to give you credit for coloring. You’ll be famous, too. I want to make a copy for my best teacher and that’s you.” Timothy gave copies of his book to family members and teachers. Wanda and Timothy practiced reading it aloud so that he could stand and read it to his first grade class. She told me later that her tenacity with Timothy in this project represented the kind of change that she has made in teaching. He was able to accomplish more than either of them might have suspected, and Wanda was able to build on his achievement in subsequent lessons.

One November day in tutorial, Timothy was reading a passage in a picture book and got stuck on a word. Wanda wrote to me about a breakthrough:

I pointed out that it was one of the words in his book. It seemed like a light bulb went on over his head: for each of the other four words [he couldn’t read], he wanted to know if it was a word from his book. So now I’ll do the high-frequency words that are in his book, and I’ll ask

him to find them as we practice reading and writing them. Real words from his real book.

When I visited in December, Timothy consented to read the book in my presence. I asked him how he wrote it and how his teacher helped him. He did not have much to say; I wondered if the initial magic of his accomplishment now seemed distant to him. Wanda felt that he had moved on, and she commented on Timothy's recent accomplishments.

Timothy had begun a short controlled reader in a recent tutorial session. He took the book home to read two more pages with his parents that night. When he arrived the next day, Wanda told me, he was able to read much of it independently and correctly at a level Wanda had not previously seen. When she said to him, "I didn't have to help you at all," Timothy himself was startled. He beamed and said, "I get it!" Wanda used the moment to show him a new technique to help him connect letters with sounds: tapping out the sounds with forefinger and thumb. She explained to me with great excitement that he was successful. "I've never been able to get him to even look at the book and really look at letters that way before." Wanda recalled saying to him, "Timothy, this is music to my ears. . . . I just want to tell you I'm so happy. Why do you think I'm so happy?" Timothy guessed, "Because I did good." Wanda told him just what kind of effort made the difference:

You really understand what reading is now. You don't just look at a page and guess. You're really looking at the words, and if you don't know a word, you tap it out and you sound it out and you've got the idea. You just really know what to do.

Timothy looked at her and said, "Oh, so I could take this book home and I can read it to myself?" Wanda responded, "Exactly right."

Through the book project and in later tutorial sessions, Wanda maintained high expectations and expressed her belief that Timothy could succeed. She also gave him specific feedback about the link between his effort and his success. Wanda explained that she might not have taken Timothy as far if she had not reconsidered her beliefs and the messages she gives students about her expectations and their effort.

Good Timing and Supportive School Environment

We reflected together on the way circumstances make a difference in learning. Just as Wanda made clear attempts to create favorable circumstances for Timothy to make significant gains in “cracking the alphabetic code,” positive circumstances supported her own change in thinking and practice. The course offered an important opportunity to reflect on the dilemma of *when to support/when to push* that had concerned Wanda throughout her career. The course, she said, “gave me some words for [the dilemma]. . . . It was a piece of a bigger construct so I could sort of see where it fit in. . . . [The course] also gave me some suggestions for how I could do better.” Timing and opportunity for application were favorable. The year she took the course, she was co-teaching frequently in a first grade classroom where many children had learning difficulties. Wanda was able to use both theory and practice from the course to communicate high expectations and effort; she shifted the way she worked with the first graders.

Wanda’s work on National Board certification and the course occurred in the same year; she found many intersections in ideas between the course and the dimensions of teaching that she had to document for certification. In addition, the state

and national emphasis on standards had increased in recent years. Wanda mentioned that a number of teachers were taking courses on standards-based education and that the school faculty as a whole was beginning to talk more about standards. A major thrust of *Studying Skillful Teaching* has much in common with the standards movement because it describes clear articulation by teachers of what students should know and be able to do. Thus the main focus of Wanda's professional learning and the focus of the school district were largely compatible.

In a significant way, the context of Longwood School and its mission, articulated several years ago, helped lay the groundwork for Wanda's shift in thinking and practice. There are posters in every classroom titled *Effort Pays Off* with five points describing what constitutes good effort. Wanda explained to me that the faculty had had a summer professional development day about five years ago during which they developed a mission statement, made a decision to use this poster in all classrooms, and developed a daily pledge about what it takes to "get smarter." She recalls it as a satisfying, collegial day that has had a long-term impact, and said, "Just about all the teachers really do believe this piece." I noticed that the daily pledge and the effort chart were in this year's September parent newsletter and Wanda confirmed that the whole school is united in its beliefs about effort and expectations.

A Changing Sense of Mission

My whole practice had changed by the time I got to Timothy. I knew I could get some of this [learning] out of him. . . . When I proposed this [book project], I don't think it was something that he even thought he could do. It wasn't on his radar screen.

Five years ago, it would not have been on Wanda's radar screen either. Her change seemed evident in the way she spoke of her role and made comparisons with herself as

a younger teacher. Reflecting on her earlier years, Wanda said, “I was so focused on teaching them how to decode and spell and make their letters right.” She described herself as a younger teacher who “followed the rules” but now was more interested in taking risks and in addressing the student as a learner, not just as a reader.

I think more about what I’m going to do to make a kid care about his work, have confidence in himself, be willing to try, be willing to accept the fact that he’s made a mistake and move on.

Wanda’s words reveal that “holding high expectations” has changed its meaning for her: more than achievement in a subject area, it also means expecting an effort-based approach to any kind of learning.

For Wanda, part of learning to nurture a child’s effort is captured in a new balance between teacher and student: “I’m the person setting the focus and direction some of the time but not all of the time. I’m constantly making that decision—do I have to lead or can I take from where they are and follow them?” Thinking about Timothy in particular, she emphasized his need for a sense of independent competence.

He needs every opportunity to be able to say to himself, ‘I did that by myself.’ And that’s especially why . . . when he finally finished reading that book by himself, I reminded him that I really didn’t read it, I just got him going.

Reflecting on her role, Wanda realized that she found ways to show Timothy that his own effort made the difference in his success, while expressing the belief that he could do it. After listening to Wanda describe this difference in her approach compared to her earlier teaching, I asked her to imagine that her 30-year old self was sitting with us and wondered what that younger self would have said. Wanda responded, “I [the younger self] would have agreed . . . but it wouldn’t have been coming out of me.” Wanda seemed to feel that her younger self would have endorsed her current pedagogical

stance but would not have been capable of adopting or articulating it. At this mature stage in her career, Wanda is enacting values that have been with her since childhood and have guided her own learning. Now the children with whom she loves working are the full beneficiaries of her high expectations for their learning.

Interpretive Reflection

Wanda declared that the professional learning in the course led her to raise her expectations of her students. Signs of pedagogical change that reflected higher expectations were evident in her words and her actions during our study. In particular, when Timothy was not making progress with the alphabetic code, Wanda made a decision that she claims she would not have made before participating in the course. Instead of backing up and working on simpler exercises about letter sounds, she challenged him with harder work on a book project. And the book project wasn't just harder; it was also grounded in Timothy's own experience and driven by his interests. Wanda put him in charge and shifted her own role to that of coach. She was able to use the book to move along his understanding of letter sounds; after the book project was complete, Timothy made a leap forward in comprehending the decoding process. Wanda believes that her commitment to challenge Timothy to a new level of effort and achievement was instrumental in his success.

Internal awareness of her own beliefs led Wanda's pedagogical changes. She recognized that she had not expected enough from her students; she had chosen to see them as limited and in need of her sympathy and help. After Wanda became engaged with the course's ideas about the power of higher expectations, she came to a realization that she called "huge." She then wanted to correct a perceived imbalance between her

strengthened belief about high expectations for her students' learning and what she was actually communicating and doing. Wanda's new thinking led to interactions with her students that emphasized the importance of effort; she provided opportunities and supported them to make more effective effort. Wanda pointed out to me that the content she actually teaches her students "isn't much different than it used to be . . . [the change] is more about how I treat the kids."

Why was this the opportune moment for Wanda to take hold of higher expectations and make them a more intentional part of her pedagogy? Several variables appear to have intersected with the course to foster a shift not only in practice but also in the very ground of Wanda's teaching. Her background, development, and current teaching context all combined to influence her learning at the time she participated in the course.

Wanda's family background and history as a learner set the stage. High expectations for learning were part of her upbringing and self-image. Strong family values about education shaped Wanda's initial frame of reference and thus informed her development as a learner. When she told me about her family's attitude toward education, Wanda used the word *expected* several times, making it clear that her parents held high expectations for her academic work. In her own learning history, she showed an early inclination to want to work hard, and it continued throughout her schooling and into her adult life. Very few teachers decide to spend the time and energy to earn National Board certification. Wanda revealed her high expectations for herself as she engaged in both Studying Skillful Teaching and National Board certification. She followed her own dictum: "If you're going to grow professionally, you've got to work at it."

Wanda's decision to be a teacher was made twice. I surmise that the second time prepared the ground for the higher expectations she would later come to embrace.

Becoming a teacher was not something that Wanda initially set as a career goal for herself. In fact, architecture had captured her interest at first, but "my father discouraged the idea, saying I'd have to work a long time in an office to get ahead." So she simply followed a family tradition and became a teacher. Teaching, Wanda found, was a way to earn a living, be in a setting that had been positive in her experience as a student, and work with children in a loving and supportive way. Her initial reasons for selecting teaching are in keeping with clear trends delineated in Lortie's (1975) and Huberman's (1993) research: a family tradition of teaching and contact with children. Wanda's comments led me to believe that in her early years "high expectations" might have meant requiring students to finish prescribed learning tasks rather than holding a "no ceiling" belief in their capacity to learn. When she chose teaching again after a time away in the business world, Wanda stated clearly that she wanted more interesting, challenging work. In returning to teaching, she pushed up the ceiling for herself; later she would raise the bar for her students.

Two of the keys to understanding Wanda's change in pedagogy are her internal shift in conception of her role as a teacher and the external changes she undertook to match that new perspective. As a young woman whose frame of reference for teaching influenced her to "follow the rules," it is likely that she saw her role as directing reading and writing activities and expected her students to comply. If they had difficulty she would become a sympathetic supporter and offer immediate help. Years later, after the course, she said, "My whole practice [had] changed by the time I got to Timothy."

Wanda came to see her role as empowering students to become independent learners.

Her decision making, influenced by a more conscious commitment to high expectations for her students, centered on a constant internal question: “Do I have to lead, or do I take them where they are and follow them?” Either way, she has come to believe that her role is to strike the balance between supporting her students not to give up and challenging them to stretch more independently for learning.

Such a change in role indicates a transformational shift in stance, a shift that was supported not only by her participation in the course but also by three other factors. First, Wanda is at the veteran stage of her career. She has mastered the content area of her teaching, she handles the logistical demands of the job with ease, and her repertoire of teaching approaches is large. Her current level of competence and her attitude toward work seem to illustrate an “experienced and engaged” career stage (Richardson & Placier, 2001). In this stage, Wanda’s experience and the automaticity of her skills allows her to focus squarely on student learning rather than on her management of the teaching job (Fuller, 1969; Huberman, 1993; Loucks-Horsley, 1987). When she arrived in the course, she was already able to dig below the surface of student learning, to think more about the position of the learner, and to reassess her own role in relation to her students.

Wanda’s level of development as an adult is signaled in part by her sense of personal authority and constitutes a second factor in her decision to raise her expectations of her students and shift her role. In discussing her early years in teaching, Wanda characterized herself as a rule-following teacher. From this comment and other conversations I had with her, I suspect that she accorded external authorities a fair amount of power in her work life. In those days, she might have been at a position of development described by Kegan as the third order of mind, also called *interpersonal*

(Kegan, 1982, 1994). She was developing as a teacher, embedded in a social network of colleagues and administrators that gave her reference points to judge her own thoughts and actions. By the time she took the course, I believe that Wanda had moved to a position of greater personal authority, described in Kegan's theory as the fourth order of mind: *institutional* or *self-authoring*. I am persuaded of this shift in personal authority because after she saw herself mirrored and recognized her own lowered expectations of her students, she gained a new perspective through the research and discussion offered in the course and wasted no time in making pedagogical changes. Wanda did not check with a principal or colleague; she just *knew* what was right and acted on that inner knowing. Her inner shift in perspective followed by an outer move toward action illustrates what Belenky, Clinchy, Goldberger, and Tarule (1986) term *constructed knowing* and what Loevinger (1976) would call a *conscientious* milestone of development. Wanda's way of knowing had shifted. She did not question her own authority to move on new ground and changed her role from directing and protecting her students to expecting more and helping them to reach higher levels of achievement.

The context of Wanda's teaching also favored her professional learning, and is the third factor that supported her significant role shift and pedagogical changes. She was bolstered by a school that had adopted a set of common goals and beliefs about the role of effort in student learning. The professional collegiality that existed in Wanda's school was similar to the strong school cultures that support student achievement described in the research literature (DuFour & Eaker, 1998; Little & McLaughlin, 1993; McLaughlin, 1998; Newmann & Wehlage, 1995). At Longwood, the goals and beliefs were not just nominal; they had been developed and articulated by the teaching staff and were sustained by common practices all over the school. Wanda's involvement in this

faculty initiative laid fertile ground for reflection on her own beliefs and practices when she took the course. Wanda did not think that the professional collaboration in the course was unusual, because it was consistent with the practices in her school.

Favorable contextual circumstances extended beyond the school itself. Wanda's engagement in some system-wide work on standards-based education and her pursuit of National Board certification helped move her thinking along every dimension of teaching and learning, and coincided synergistically with the information and ideas presented in the course.

The story of Wanda's professional learning illustrates how several elements can coalesce into a "tipping point" that results in new thinking and practice. Studying Skillful Teaching provided an opportunity for Wanda to engage with theories of intelligence and research on expectations. After she became aware of her past perceptions that set limits on what children could do, she changed her messages to be more in line with her conscious beliefs. Wanda's decision to raise her expectations for her students was grounded in her own background and learning, supported by her years of experience and sense of personal authority, and reinforced by a school environment that espoused the very beliefs that she wanted to enact.

Influences on Professional Learning: Background, Development, and Context

The initial purpose of this study was to find out what changes endured in teachers' knowledge and practice after participation in professional development. As my research evolved and revealed the complexity of professional learning, I began to ask, "Why were different changes important to different teachers?" The stories of five teachers who took a professional development course, *Studying Skillful Teaching*, revealed three underlying forces that influenced their professional learning and subsequent pedagogical changes: background, development, and current teaching context. Through our collaborative research, this study grew to encompass the teachers' unique personas, challenging me to meet them where they were in their lives and to understand the underlying influences on their professional learning.

Each of the three underlying influences is comprised of distinct variables:

- *Background* variables include the teacher's family of origin, socioeconomic position, values, cultural identity, schooling history, and elements that shaped the decision to become a teacher.
- *Development* encompasses three variables: becoming and growing as a learner, developing a sense of personal authority as an adult, and progressing through career stages as a professional.
- *Context* involves variables such as the diversity and number of students, school culture, community, and district goals and requirements.

These underlying influences create an alchemical reaction with the content and instruction of a course. As the research progressed, I began to notice how each of the five teachers' professional learning was subtly individualized by their personal background, past and ongoing development, and the context in which they were teaching. Again and again, I discovered connections between concerns in the foreground of their current teaching and characteristics of their personal background and development. In addition, each teacher's current context exerted a discernible influence on his or her learning. Professional learning, as these teachers' stories illustrate, is complex because—like teaching—it is multidimensional and highly personal.

Such a complex picture of teacher learning offers both encouragement and caution to those who educate teachers and arrange professional development programs. These findings are encouraging because the unique dispositions, knowledge, and hopes that teachers bring to professional learning can be powerful resources. When courses and other professional opportunities tap into these resources, the learning of individual teachers and their colleagues may be enriched. But the findings are cautionary because those who offer professional development programs may believe—and may indeed mandate—that participating teachers must all gain the same knowledge, presumably to enhance their teaching. This sanguine assumption underlies typical comments about providing teachers with support to learn new curriculum, such as, “Well, they all took the training.” In reality, the enduring learning is likely to be quite different for each teacher because professional development is influenced by the unique set of lenses that each teacher brings to the experience. One of the implications of this research is that programs of professional development must take into account the roles of background, development, and context in professional learning.

The Role of Background

Common to the five teachers' stories is the lasting quality of family, culture, schooling, and early vision of self-as-teacher. Those formative influences shaped each teacher's frame of reference and later affected what he or she found significant in professional learning. Family emphasis on high achievement, for example, seemed to push Dhyan and Wanda not only in their early years but also as adult learners. Reflecting on the influence of the course on their learning, Dhyan and Wanda each selected a research focus for this study that addressed beliefs about intelligence and effort. Wanda clearly incorporated her family's belief in high achievement; she refined her thinking and her actions to reflect a renewed commitment to her students with special needs. In Dhyan's case, the cultural values of the hardworking expatriate community in Hong Kong were an integral part of her parents' attitude toward her schooling. She was expected to make sustained efforts to learn, no matter what obstacles she encountered. Dhyan's professional learning reflects a version of those same values; she wanted her third graders to become aware of the time and effort needed for learning.

The experience of schooling cannot be underestimated as a shaping background force in the life of a teacher. It affects the view of self-as-teacher and influences the decision to teach and, later, the possibilities for professional learning. For example, John's and Dhyan's negative school experiences eventually colored their decision to teach; they wanted to offer better teaching than they had received as students. Their choices of professional learning were aligned with this aim. Specifically, John wanted to use models and provide clear criteria so that his physics students would be well informed and challenged. In sharp contrast to his own experience as a student, John offered his

ninth graders clear expectations and support for their learning. He wanted to instill “ownership of learning” in his students and he hoped for a sense of connection with them in the learning enterprise.

Nieto points out quite simply, “Autobiography is part of teaching” (Nieto, 2003, p. 123). Indeed, the literature of research on practicing teachers has demonstrated how teachers bring beliefs and practices from their family, culture, and schooling into their *teaching* (Ayers, 1989; Danielewicz, 2001; Day, Calderhead, & Denicolo, 1993; Levine, 1999; Nieto, 2003). The portraits in this study show how the same influences also affect teachers’ *learning*. It is likely that background exerts similar power in other teachers’ learning and therefore should be factored into the expectations and design of professional development programs.

The Role of Development

Human development begins at birth and becomes part of one’s personal background with each passing day. An individual’s development also extends into the present, is shaped by circumstances, and advances into the future. Inevitably, professional learning is affected by “the restless, creative process of development” (Kegan, 2000, p. 60). The five teachers in this study drew my attention to the influence of three dynamic aspects of development on their professional learning: learning style and beliefs, career stage, and a sense of personal authority.

Beliefs about learning and learning style evolve early in school, become integrated into teaching, and play a role in adult learning. Professional learning opportunities can function both to support and to stretch a teacher’s stylistic preferences, as Joan’s portrait illustrates. She proclaimed herself a visual learner who prefers to be

shown how to do something and then be given the opportunity to discover more in an open-ended way. In this course she found a comfortable match with her learning style due to the visual presentation of information, demonstration of strategies, and invitation to experiment in her art classes. But Joan went beyond her own comfort level; she stretched when she reflected on the link between her learning style and teaching approach. Joan realized that she needed to provide more verbal explanation and structure so that all learners—especially the “balky kids”—would have a chance to make progress and be satisfied with their artwork. When professional learning offers teachers the chance to revisit their own learning style and reflect on its expression in their teaching practice, new directions for teaching may emerge.

Development as a learner is more than an evolution of style or preference; it is fundamentally concerned with the growth of beliefs and attitudes. Dhyan’s story provides a particularly powerful illustration of how the early experience of becoming a learner shapes beliefs and affects what may be salient in professional learning. When she failed a science exam in the British middle school, her response was, as she explained to her third graders, “to take control of my learning.” Awareness of the power of her own effort not only supported the rest of her schooling but also reappeared in her professional learning. In the course, Dhyan wrote a reflection about this turning point in her development as a learner and then decided to raise her students’ awareness of the relationship between their effort and learning. Dhyan’s story bears witness to a phenomenon that is likely shared by many teachers: beliefs about learning are rooted in a teacher’s own development as a learner.

Progression through career stages, from beginning teacher to veteran, is another strand of development that influences professional learning. Sometimes the kind of

learning that teachers seek seems aligned with career stage, sometimes not. In Jack's case, there was clear alignment between his career stage and the professional learning he found important in the course. Jack's concern about managing day-to-day survival in his home economics classes was typical of a beginning teacher and was reflected in his choice of the most significant learning from the course: using objectives to plan instruction. Developing and communicating objectives is a basic, fundamental strategy in planning instruction. However, it is surprising that Joan, a skilled veteran teacher, chose instructional strategies as the most important learning from the course. Because she was a mature and reflective teacher, I would have expected her to be more drawn to the course content about beliefs, expectations, and motivation—the subtext in teaching and learning. Her case is instructive because a variable other than her career stage was more influential in her professional learning, namely context. Joan was simply overwhelmed by the number of her students and the lack of time. My work with the teachers in this study leads me to believe that although the concerns that typify career stage are important, the construct of career stages is somewhat limiting as a framework for understanding teacher learning. The depiction of stages may be interpreted in too linear a fashion and the concerns of a career stage may often be trumped by other variables.

This study focused on one hallmark of adult development: the evolving sense of personal authority. Each new step along the path of acquiring belief in one's own authority changes the terrain of professional learning. A teacher's perception of his or her authority in decision making versus the weight he or she gives external authority influences the kind of professional learning that the teacher may find useful in practice. Jack's story provides an example of a teacher who appeared to define himself in terms important to his social and professional network. Learning about objectives in the course

not only provided Jack with a tool for survival but also corresponded to his perception of his principal's expectations and his wife's appraisal of what was basic to teaching. Additionally, Jack's use of objectives in teaching supported his nascent sense of authority with his students.

Wanda's portrait illustrates a different kind of intersection between evolving personal authority and professional learning. Older and more experienced than Jack, her own sense of authority was well established. Through reflection in the course, Wanda realized the need for a personal change in her stance as a teacher. She was relatively unconcerned about what others in her professional surrounding might think; instead she focused on the coherence between her inner beliefs about expectations for student learning and her outer expression to students. In each case, professional learning helped Jack and Wanda reflect on their practice and make pedagogical changes that were aligned with their level of development.

The Role of Context

Some teaching contexts provide fertile ground for expansive possibilities in teacher growth. Other contexts seem to exert pressure, pushing teachers to look for and retain professional learning that is practically related to immediate demands. For each participant in this study, teaching context had a clear influence on his or her work and learning. Three teachers—John, Jack, and Joan—worked in difficult and somewhat unsupportive contexts. Furthermore, they encountered challenging physical conditions: John's windowless science classroom in a large urban high school, Jack's semifunctioning cooking lab in a small-town high school under construction, and Joan's travels to three elementary schools (only one with an art room). All three chose to learn

instructional strategies to help focus and manage the task of reaching students. These same three teachers had heavier teaching loads and experienced relatively less administrative and collegial support than the other two teachers, Wanda and Dhyana, who benefited from lower student-teacher ratios and strong professional communities.

It is significant, I believe, that the three teachers whose contexts were characterized by many demands and little support used a professional development opportunity to acquire instructional strategies, in part to help them cope with pressing realities. The two teachers in more supportive contexts, Wanda and Dhyana, engaged in professional learning to explore important aspects of a subtext in teaching: beliefs, expectations, and motivation. My inquiry into the learning of the first three teachers revealed how issues in the current teaching context can sometimes override other variables that influence professional learning. The elements of Wanda's and Dhyana's enduring learning, by contrast, suggest that when the context is supportive, teachers may be able to attend to less tangible yet influential aspects of teaching. The five stories of professional learning in this study show that the context of a teacher's job clearly influences what the teacher both wants to learn and can actually incorporate into practice.

Implications for Professional Development

The roles played by background, development, and context in professional learning present some distinct challenges. It might seem simpler to make the usual assumptions about teacher training and continue to offer professional development programs with the expectation that most teachers will meet program goals and improve their teaching. But the voices and experiences of teachers in this study portray a more complicated picture: the course content intersected with their history, development, and current context to

produce unique learning for each teacher. Their stories illustrate that teacher learning and development, as Richardson and Placier point out, “is inevitably idiosyncratic and must be viewed in relation to life history and the context in which development is taking place” (2001, p. 909). This qualitative reality suggests three broad implications for professional development that should concern professors involved in teacher preparation, school district administrators, teacher educators, and the teachers themselves.

First and foremost, those involved in professional development must begin with a crucial assumption: a growing teacher is a “thinking, decision-making, reflective, and autonomous professional” (Richardson & Placier, 2001, p. 214). The five teachers in this study exhibited these qualities; they began by making many decisions about what to learn during the course and they continued to make decisions as part of our collaborative research. Their energy and investment was unusually high, yet elements of their stories were typical of many teachers. The sheer complexity of teaching and the multiple demands of context require that all teachers grow to be astute and flexible decision makers. Decisions, after all, are at the heart of daily teaching; they are the instruments of a teacher’s work and the signs of a teacher’s knowledge and beliefs. Professional development must aim not to mandate particular teacher behaviors but rather to help teachers make thoughtful, high-quality decisions (Darling-Hammond & Sykes, 1999).

Second, research about learning and development in several fields should command greater attention in designing and leading opportunities for professional development. The five teachers’ stories of professional learning illustrate and amplify themes and patterns described in several bodies of professional literature. Serious consideration of the intersections between these literatures may avoid oversimplification and may offer more sophisticated explanations for teacher learning. The story of one of

the teachers in the study provides a good example of the perspective that can be gained from several literatures. Joan, the elementary art teacher with 1,150 students, helped me perceive an interesting intersection between the literature on career stage and the research on school contexts. I had anticipated that a skilled veteran teacher would gravitate toward the subtext of beliefs as the most important learning from the course. But the challenges of her context constituted a powerful variable in her learning, and Joan felt compelled to seek more strategies to help her cope with her particular situation.

The intersections in Joan's professional learning continued when I added perspectives from the literature on the sociology of teaching that call attention to the early influence of family, socioeconomics, and culture. Joan's background and choice of teaching suggested that her main concern was to manage the job in some kind of balance with her family demands. Her practical attitude toward teaching may have influenced her realistic search for new strategies to manage hundreds of students. Next, theories about stages of adult development gave me a window on her arrival at a new stage that was characterized by a growing sense of personal authority in balance with external authority. The adult development perspective helped explain why she found the course "an epiphany"; she gained new ground for making her own decisions about what was important in her students' learning. Finally, reconnecting with the variable of context, Joan's maturing development helped her cope in a new way with the long-term "institutional neglect" (Johnson, 1990) of her school district. Joan's enduring learning is clearly attributable to a combination of variables, illuminated by the literature on the sociology of teaching, teacher learning, and human development. In a similar way, perspectives from several literatures helped me gain a more nuanced appreciation of the professional learning of all five teachers. Such a combination of multiple perspectives

from the professional literature is likely to foster a deeper understanding of many teachers' professional learning.

Third, teachers deserve opportunities for professional learning that are varied and challenging, and that account for the underlying influences likely to affect their learning. The characteristics of reform-oriented professional development, described in chapter 3, are promising. But more is needed. The portraits of five teachers in this study highlight significant needs that are likely to be important to many teachers' professional learning. A range of opportunities should be made available to teachers with the expectation that they will continue their learning throughout their careers. Such opportunities should not only have the characteristics of reform-oriented programs but also:

- Stay mindful of the *underlying influences at work* throughout a professional learning experience. No matter what the goals of a professional development program, each teacher's learning is being individualized by the teacher's personal history, past and current development, and teaching context.
- Consider the *background and development of teachers* a resource for learning. It is important to connect new learning with what they already know and believe. Furthermore, introspection about roots of beliefs opens the way to questioning assumptions and gaining insight.
- Respond to *teachers as adult learners*, with attention to the influence of learning beliefs and style. Teachers can see the links between their own preferences as learners and what might be true for their students; they can also come to appreciate how their beliefs about learning govern their instructional decisions.
- Stay cognizant of *concerns that are linked to career stage*. The concerns that beginning teachers bring to their learning tend to be different than the concerns of

more experienced teachers. Although this is not always the case, the possible variation is important to keep in mind.

- Encourage the *growth of personal authority* in decision making. Teachers may need guidance in weighing their own experience and knowledge against the expectations and opinions around them. The gradual growth of personal authority may be facilitated by affirmation and exposure to multiple perspectives.
- Engage teachers in *autobiography as an avenue for learning*. Teachers can become aware of the influence their background and development have on their learning through structured opportunities for autobiographic conversation and writing. Such work can facilitate deep links between the personal and the professional (Ayers, 1989; Day, 1993; Nieto, 2003).
- Be *organized in collegial contexts*. Teachers are often coping with pressing realities in isolation. Professional conversation and collaboration can provide powerful support for the growth of productive teaching and learning.

Looking retrospectively at Studying Skillful Teaching in light of these qualities, I see strengths and areas that need attention. In the course, the autobiographical reflections and connections with self-as-learner clearly made a difference to the teachers in this study; they are strengths to build on. Another strength of the course, often cited by teachers, is the frequent and productive professional conversation and collaboration. More could be done in the course, I believe, to tune into career concerns and to nurture the evolving sense of authority for instructional decision making. Most importantly, I think teachers' experience in the course would benefit from greater sensitivity to their contexts. Explicit connections between the challenges presented by a teacher's context and the ideas and strategies offered in a course would help build a teacher's capacity for

thoughtful changes *in situ*. I believe that better tailoring of learning opportunities to context may be necessary in many professional development programs.

Directions and Questions for Future Study

Certain issues in professional learning called my attention at moments during this research yet remained peripheral to the focus of my study. Nonetheless, three themes have persisted in my mind as important to address in order to fully understand the influences on teacher learning. They deserve consideration and further study.

The Influence of Teacher Preparation on Later Professional Learning

I have sometimes believed, with others in the field, that teacher preparation is a fairly “weak intervention” in the development of a teacher (Kennedy, 1999; Lortie, 1975). Yet in two different ways the study with these five teachers has made me question that notion, although I was not able to explore it more extensively. First of all, two of the teachers, Jack and Joan, never imagined being teachers, had no teacher preparation, and jumped into their first year of teaching with little support. I believe that the absence of preparation not only contributed to their difficulties in their early years but also affected their experience of the course. Jack came to the course as a “rookie” and Joan as a veteran, yet each talked about their experience in the course as a revelation. Jack said it helped him “make sense of teaching”; Joan called it “an epiphany” in her life. They seemed especially hungry for a course about the art and craft of teaching; they seized upon the opportunity to consider their own experience in light of some larger ideas about method, role, and beliefs.

At the other end of the spectrum was Dhyana, whose preparation in the master’s program at Tufts University changed her very stance as learner and teacher, inspiring her

to teach in ways different from her experiences as a student. This teacher education program made a large difference in her professional development. When she encountered a professional course that was similar to Tufts in its expectations about her learning, she continued to reflect deeply about teaching and learning. So I am left to surmise that teacher preparation must be seen as the beginning of a continuum of professional learning. When there has been *no* preparation, a teacher begins inservice professional learning in a very different place than those who have had at least some preparation to teach. Further study is needed to explore the question: How might the quality of teacher preparation influence later professional learning?

The Distinction Between Informational and Transformational Learning

I am intrigued by the distinction, proposed by Kegan (2000), between informational and transformational learning, discussed in chapter 2. I am inclined to agree with his formulation and yet I think more study is needed to understand its implications for professional learning. It seems to me that all five teachers in my study undertook some *informational* learning; they added strategies and concepts to their existing frames of reference. And it appears that three teachers—Wanda, Dhyan, and Joan—engaged in some *transformational* learning. They began to question the way they were looking at issues—enlarging their frames of reference—and then moved to make changes in their roles. Signs of differences in the quality of the teachers' learning raise several questions for further research and for my own work as a teacher educator. What characteristics in a learning opportunity for teachers might support informational learning *and* have the potential of being transformative? When might it be optimal to offer an opportunity for informational learning and when might possibilities for transformational learning be

timely? How might a teacher educator work productively to engage a teacher in questioning assumptions about issues of self, authority, and context?

The Influence of Pedagogical Changes on Student Learning

When I set out on this research, I had hoped to investigate teachers' perspectives on how their intentional changes in practice might have affected student learning. My plans for data collection, therefore, included a collaborative session to examine student work samples for influences of pedagogical strategies on student learning. As discussed in chapter 1, it was difficult and incomplete. The sample was too small and the structure too uncontrolled to see any credible signs of influence. In addition, I encountered some reluctance on the part of the teachers, which I believe was rooted in their own questions and worries about the effect of their teaching on student learning. Their concerns are captured in part by John's comment prior to looking at his ninth grader's physics projects: "I have no idea if what I am doing is making any difference." John's words not only give voice to a concern common to the five teachers in this study; it is probably typical among many teachers (Lortie, 1975). This raises a fundamental issue and a question to pursue in further research: Why do teachers continue to make changes at all if they do not know whether such changes make any difference?

The field of education has struggled with the challenge of making clear connections between teacher practice and student learning. Significantly, the most recent *Handbook of Research on Teaching* notes, "Few studies of teacher change . . . move toward examining what happens to student learning when teachers change their practices" (Richardson & Placier, 2001, p. 939). Only a few studies may exist because they are difficult to conduct in the context that will likely yield the most valuable

insights: the classroom. Multiple variables are functioning simultaneously in a classroom where a particular teacher is instructing individual students who vary in their backgrounds, skill levels, and interests. Therefore, a change in student learning must be viewed not only with regard to the teacher's pedagogical actions but also in light of what each student brings to the moment of learning. Given the complexity of the teaching-learning dynamic, we are left with a worthwhile question to explore: What could be done through research to trace the influence of a deliberate change in pedagogy on student learning?

Personal Reflection

There must be links, after all, between what we are trying to make of ourselves, and what we are striving to make possible in the lives of those we teach.

- Maxine Greene, 1995

My knowledge and practice as a teacher educator have changed as a result of this research. The stories of Joan, Jack, Wanda, Dhyan, and John taught me how professional learning is affected by a confluence of personal background, past and ongoing development, and current teaching context. These five teachers brought their “entire autobiographies” (Nieto, 2003) into the course, which I now suspect is true of most teachers who undertake professional learning. My own frame of reference has been changed—indeed, transformed—because the insights I gained from these teachers caused me to reconsider what might be influential in professional learning.

Now I begin to teach a professional development course with the assumption that the participants have diverse backgrounds that influence their learning in different ways. I know that their frames of reference act as filters for incoming information and influence their capacity to incorporate new ideas into existing understanding. I acknowledge to

participants that their knowledge, beliefs, concerns, levels of experience, their students, and their teaching locations will all intersect with what the course has to offer and will affect what they take back into their practice.

Because I believe that learning is better served when its complex nature is rendered more understandable and acceptable, I now try to guide teachers to see the underlying influences for themselves. When teachers bring elements of their background to the fore, they may become more conscious of how their personal history influences the way they see the world, what their values are, what they are available to learn, and what they believe is important to teach. I set aside more time for participants to be reflective, in conversation and in writing. For example, I invite them to consider who they *were* as learners and what it feels like to be a current learner in a course. Through such reflection, I hope that the participants will gain insight into the way their learning histories and preferences affect their beliefs and their teaching strategies. Building on their own ground, they may be able to stretch beyond their accustomed thinking and practices.

I hear and respond to teachers' questions and comments differently because I am listening for unexpressed influences that may lie below the surface. For example, when a teacher asks me how to use an instructional strategy, I am likely to wonder where the concern is coming from and how many years he or she has been teaching before I decide how to answer. Or when I hear teachers discuss the conditions they work in, I tune in to the ways that contextual demands might be affecting what they want to learn in the moment. I ask questions about possible resources in their context that might support their learning. And I urge them to advocate for the kind of strong professional community that will not only sustain their growth but also support student learning.

Professional learning intersects with current adult development and may be a potent occasion for further growth. Keeping in mind the gradual development of personal authority, I find myself probing for the reasons a teacher thinks a specific approach is important to student learning. I wonder how he or she views her authority to make instructional decisions. And with the teacher, I try to explore multiple perspectives that might inform his or her decisions. As Kegan points out, “We acquire personal authority, after all, only by . . . fundamentally altering our relationship to public authority” (Kegan, 2000, p. 67). It is a long process, during which I am an interested, if temporary, companion.

Finally, this research study has convinced me that collaborative research with teachers is in itself a powerful avenue for professional growth for researchers *and* teachers. Engaging in a research study brings teachers to self-appraisal and enhances the possibilities for thoughtful development. Collaborative research with teachers in their own settings allows the researcher an indispensable perspective on the unique reality of each teacher. As the study evolves, the researcher sees patterns and discovers themes that are, as yet, invisible to the teacher. As noted by portraitist Sarah Lawrence-Lightfoot, the researcher can see the forest, yet the participants can only see the trees (Lawrence-Lightfoot & Davis, 1997, p. 210). But as the process matures, the trees and forest become apparent to both, affording researcher and teacher a larger view of the landscape of professional learning.

Appendix A

Studying Skillful Teaching Course Description

Studying Skillful Teaching focuses on improving student learning and achievement by building teacher capacity in three major areas:

- 1) teachers' understanding and use of a varied and extensive professional knowledge base about teaching
- 2) students' and teachers' beliefs about their own ability to learn
- 3) schools and school systems' ability to create and sustain professional communities characterized by shared goals, collaborative work, and shared accountability.

Expectations:

- 1) Reading and participation in discussion of theory and research studies relevant to teaching and learning.
- 2) Experimentation in own classroom using teaching strategies and messages about beliefs and expectations.
- 3) Reflective discussions and writing about efforts to apply course ideas and strategies to own classroom context.
- 4) Completion of three major assignments: lesson plan using a mastery objective; case study on a student who exhibits low confidence; personal investigation about an achievement problem using data to inform instruction.

Topic Summary Strand One: Professional Community

- research on characteristics of professional community; links to student achievement
- research on collegiality and effective schools
- norms of collaboration
- format for professional talk about teaching
- gathering and examining data about one's practice
- six step problem-solving
- peer observation (optional)

Topic Summary Strand Two: Beliefs About Teaching And Learning

- foundation of essential beliefs
- ability-centered and effort-centered theories of achievement and development
- theory of learnable intelligence and implications for teaching
- attribution theory
- effective effort and role in achievement
- history of intelligence (optional)



Topic Summary Strand Three: Knowledge Base On Teaching

A. Curriculum Planning

- thinking about objectives/key questions in lesson planning
- preparing and communicating mastery objectives/learning outcomes
- assignments and objectives/learning outcomes
- teaching thinking skills
- teaching effective effort strategies
- planning to help children practiced thinking
- relationship between standards and expectations
- standards, criteria for success, indicators, benchmarks, rubrics
- teaching in a standards-based classroom: key assumptions

B. Motivation

- 3 key messages re expectations
- major arenas for communicating key messages (e.g. calling on patterns, responding to student answers, responding to requests for help, praise, grading, grouping etc.)
- dealing with students who “don’t get it yet?”
- wait time I and II
- tenacity
- feedback: nature of, connections to planning, relationship to beliefs and achievement
- characteristics of climates of high achievement

C. Instructional Strategies

- framing learning for students (e.g. communicating the learning outcome, giving the day’s itinerary, activating prior knowledge, summarizing)
- selecting and using a repertoire of explanatory devices, i.e. modeling
- checking for understanding
- developing and using criteria for success as a basis for communicating expectations, assessment, and feedback
- using principles of learning (e.g. sequence, say-do, cumulative review, practice)

D. Management

- expanding one’s repertoire of attention moves
- routines
- momentum (e.g. preparing materials, transitions, anticipating, etc.)
- processing
- movement



Required Readings

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Appendix B: Selected Story Charts

DHYAN

Feeling

"The connection between time and effort as it relates to learning struck me as a very important message for me to give children because of the attitude it might create. It had never occurred to me to do something more active with the students on the learning process. I used to think, 'We teach a unit. We assess you. Have you gotten or not?' But now I feel it is important to address not just the students' skills but also their attitude and awareness of learning itself. Now I pay attention to the messages I'm sending about time, effort, and learning and I'm asking questions like, 'What did it take for you to get it right?'"

Professional Learning

Communicating the importance of time and effort in learning; developing students' awareness of their own learning efforts.

Self-Advocates

Intro concept of Time + Effort = Learning
Intro image "Struggling? Have Patience. In Time Grass Becomes Milk."
Gives personal example (HS biology class)
Asks students for examples
Intro learning log — will write weekly
Students begin log — "think of a time when..."
Leads brainstorming on learning (web)
Urges students to push themselves a new level
Gives messages acknowledging value of effort (written comment on paper)
Teaches strategies to be effective (editing)
Uses models to illustrate effort (pub. books)

Struggling

Case Study student learning log investment
Case Study student decides to revise because "it was not my best work."
Student contributions to learning web ("I can learn more than you realize.")
Student examples of time + efforts to learn (bullet, skimming, writing...)
Student recall of sayings (from coach, teacher)
Student explanation of editing decisions (crossing out irrelevant info = effective effort)

JACK

Professional Learning

Developing and communicating clear objectives and sticking to them in class.

"When I first started teaching, I just flew through a whole chapter. Students would look puzzled and I lost kids along the way. Now I realize that by breaking it into smaller steps, developing clear objectives and communicating them, it is a lot easier for students because I do a better job sticking to specific plans and they know what they are supposed to understand and to do. Now they can all get involved!"

Students respond to teacher questions about recipe information and formats
Students answer questions about yield.
(2X)
Students ask questions about recipe language, ingredients, and techniques
Students rewrite recipe in standard form.
Students divide selves into working groups and take turns with tasks.
Students read recipes and follow to create a salad.
A few students respond to questions at the end of class about tools, ingredients, recipe adjustments
Students work on homework in class.

Appendix C

Letter to Teacher Participant

May 23, 2004

Dear John,

Here is a draft of my writing about you and your teaching in my research study. I have so many things to say about this work in progress but I will hold back and make room for *your* response, which interests me most at the moment. I have tried to present the meaning you make of your experience as a learner and a teacher. It is quite a responsibility!

I would like you to feel free to write on this draft, recording any reactions you have in terms of:

- Accuracy – Is there any incorrect information that needs to be cleaned up?
- Authenticity – Where does it “ring true for you” and where does it seem like a false picture?
- Emotional response – What makes you feel pleased, sad, confused, negative, hopeful, whatever?
- Interpretation – What are *your* thoughts about my analysis of what is going on here?
- Reservations – Is there anything I said or you said that you would rather I did not include?

Anything else you'd like to say about this draft is welcome.

When you see italics, it means that I am reminding myself that I need to develop a point further or I have a question for you. If you see a slash / between words, it means I'm trying to decide which phrasing to use. You'll notice that I used pseudonyms throughout, often using the real first initial of the person's name.

I look forward to speaking with you soon,

Mary

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